CONTENTS OF SUPPLEMENT.

PERSONAL ..... 17
Obituary ..... 17
ENGINEERING SOCIETIES ..... 17
Coming General Meetings ..... 17
NEW PUBLICATIONS ..... 17
Trade Publications ..... 17
CONSTRUCTION NEWS:
Condensed List of Contracts Pending ..... 17
Railways ..... 18
Street and Electric Railways ..... 18
Electric Light and Power ..... 19
Bridges ..... 19
Buildings ..... 20
Water-Works ..... 20
Sewerage ..... 21
Garbage Disposal and Street Cleaning ..... 21
Streets and Roads ..... 22
Manufacturing Plants ..... 22
Miscellaneous Contracts ..... 22
Foreign Contracts and Export News ..... 22
Contract Prices ..... 23
INDUSTRIAL NOTES ..... 24
New Companies ..... 24

## PERSONAL.

Mr. R. N. Durborrow has been appointed Superintendent of Motive Power of the Allegheny Valley & Buffalo Division of the Pennsylvania R. R.

Mr. F. C. Prindle, Civil Engineer, U. S. N., has been ordered to Honolulu, H. I., where he will be connected with public works in charge of the Navy Department.

Capt. William L. Sibert, Corps of Engineers, United States Army, has been assigned to succeed Capt. Geo. A. Zinn in charge of work at Louisville, Ky. Capt. Zinn will go to Manila, P. I.

Mr. H. T. Cory, who has had charge of the engineering work at the University of Missouri during the past year, has been appointed Professor of Civil Engineering at the University of Cincinnati for the coming year.

Rear Admiral Ahmed Pasha, of the Turkish Navy, who has been investigating American ship yards, has returned home. It is said that orders will be placed by the Turkish Government for two war vessels and that one of the orders will probably go to Philadelphia and the other to San Francisco.

Mr. Thomas Appleton has resigned the position of Chief Engineer of the Copper Range R. R. and has been appointed Assistant Superintendent of Construction, U. S. Life-Saving Service, Atlantic and Lake Coasts, with headquarters in New York city. Mr. C. W. Sanders will succeed Mr. Appleton as Chief Engineer of the Copper Range R. R.

Mr. J. Watanabe has been sent to America by the Navy Department of the Japanese Government to study the systems of steel construction in vogue here. He will superintend the building of a foundry and forging, machine and boiler shops for the navy, which will be steel structures. It is hoped to bring this style of building into general use in Japan, as it would be more secure against earthquakes than stone or brick.

### OBITUARY

Mr. Sebastian Stutz, Mechanical Engineer, died at Pittsburg, Pa., on July 10.

Mr. Edward A. Currea, M. Am. Soc. C. E., recently died of appendicitis in camp near Parral, Chihuahua, Mexico. Mr. Currea had been in Mexico for more than ten years and at the time of his death was in the employ of the Mexican Central Ry. Co. as Division Engineer on the new extension of the Parral Branch.

## ENGINEERING SOCIETIES.

### COMING GENERAL MEETINGS.

AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENTS.
August 28 to 31. Annual meeting at Milwaukee, Wis. Secy., D. L. Fulton, Allegheny, Pa.

IRON AND STEEL INSTITUTE OF GREAT BRITAIN.
Sept. 10. At Paris, France. Secy., Bennet H. Brough, 28 Victoria St., London, S. W., England.

STREET RAILWAY ASSOCIATION OF THE STATE OF NEW YORK.
Sept. 11 and 12. Fall meeting at Buffalo, N. Y. Secy., Henry A. Robinson, 621 Broadway, New York city.

AMERICAN BOILER MANUFACTURERS' ASSOCIATION.
Sept. 18 to 20. Annual meeting at Cincinnati, O. Secy., J. D. Farasey, Cleveland, O.

NATIONAL ASSOCIATION OF MUNICIPAL ELECTRICIANS.
Sept. 25 to 27. Annual meeting at Pittsburg, Pa. Secy., J. W. Aydon, P. O. Box 373, Wilmington, Del.

## NEW PUBLICATIONS.

SOIL CULTURE, CEREALS AND FRUITS.—Evidence of Dr. William Saunders, Director of the Dominion Experimental Farms, before the Select Standing Committee on Agriculture and Colonization. Pub. Doc, Ottawa, Canada. Paper; 8vo.; pp. 37.

The nature of this publication is pretty well explained by its sub-title, and it relates mainly to matters of agriculture.

IRRIGATION IN FRUIT GROWING.—By E. J. Wickson, Professor of Agricultural Practice, University of California. Farmers' Bulletin No. 116, U. S. Department of Agriculture. Paper; 6 × 9 ins.; pp. 48; illustrated. Washington: Pub. Doc.

This seems to be a brief and practical exposition of the subject indicated, which, together with Farmers' Bulletin No. 4, on "Irrigation in Humid Climates," might be studied with great advantage in the East as well as the West.

EXPERIMENTAL FARMS.—Annual Report of the Director of Experimental Farms, and his Assistants. Appendix to the Report of the Minister of Agriculture, 1899. Pub. Doc., Ottawa, Canada. Paper, 8vo.; pp. 443; illustrated.

This is a volume of reports on the results of work undertaken at the government experimental farms in Canada.

LEAGUE OF AMERICAN MUNICIPALITIES.—Report of Convention at Syracuse, N. Y., Sept. 19 to 22, 1899. Paper; 6 × 9 ins.; pp. 149. Address the Secretary, B. F. Gilkison, 111 Nassau St., New York city.

The greater part of this report is devoted to papers and discussions on municipal ownership. In addition, various other municipal problems are presented. The membership of the league is chiefly among mayors and councilmen. A lengthy report of the convention was given in our issue for Sept. 28, 1899.

U. S. EXPERIMENT STATIONS.—Report of A. C. True, Director, for 1899. Extract from Report of Secretary of Agriculture. Paper; 6 × 9 ins.; pp. 119 to 153. Washington: Pub. Doc.

About a dozen pages of this report are taken up with an interesting account of the irrigation investigations begun some two years and which are now under the immediate charge of Mr. Elwood Mead, M. Am. Soc. C. E., of Cheyenne, Wyo. Studies of water rights and the duty of water in 15 States are now in progress.

LEAGUE OF IOWA MUNICIPALITIES.—Report of Convention at Des Moines, Ia., Oct. 11 and 12, 1899. Secretary, Frank G. Pierce, Marshalltown, Ia. Paper; 6 × 9 ins.; pp. 75.

Such organizations as this one are becoming quite numerous. They are attended by many who, for one reason or another, do not go to the meetings of the national associations of municipal officers. At the Iowa convention such practical questions were discussed as special assessments, city charters, municipal bookkeeping, water-works and electric lighting plants.

FIRE TESTS WITH FLOORS.—The British Fire Prevention Committee, 1 Waterloo Place, Pall Mall, London, England. Two pamphlets; paper; 8vo.; pp. 19 and 20; illustrated.

One of these pamphlets (No. 45 of the Committee's publications) describes the fire test of a floor of concrete and wire netting on wooden beams, the floor being made by the Mural & Decorations Syndicate. The beams were partly burned. The other pamphlet (No. 55) describes a fire test of a floor of timber beams and coke-breeze concrete, with expanded metal and plaster ceiling. All the beams were damaged.

IRRIGATION IN THE ROCKY MOUNTAIN STATES.—By J. C. Ulrich. Bulletin No. 73, U. S. Department of Agriculture, Office of Experiment Stations, A. C. True, Director. Paper; 6 × 9 ins.; pp. 64; 10 plates. Washington: Pub. Doc.

This is an elementary discussion of the "agricultural conditions prevailing, and the methods of acquiring and using water for irrigation," particularly in Colorado, Wyoming, Utah, Idaho and Montana. It has a brief introduction by Mr. Elwood Mead, M. Am. Soc. C. E., Irrigation Expert in Charge of Irrigation Investigations. The plates are mostly good half-tone views of irrigation works.

AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENTS.—Report of Convention at Toronto, Oct. 3 to 5, 1899. Allegheny: D. L. Fulton, Secretary. Paper; 6 × 9 ins.; pp. 298; illustrated. $1.

This volume contains a large amount of information which should be of interest and value to municipal engineers and other city and town officials. The papers and discussions on paving and allied subjects are particularly valuable, as coming from some of our foremost authorities, and also because this field has not been covered so thoroughly as some others of late. Abstracts of the various papers and discussions were published in our issue for Oct. 12, 1899.

### TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½x6 ins., 6x9 ins., and 9x12 ins.)

ELECTRO-PNEUMATIC INTERLOCKING.—Union Switch & Signal Co., Swissvale, Pa. Paper; 10¾ × 8 in.; pp. 48; illustrated.

This handsome publication deals with the details of the electro-pneumatic system, which is a specialty of this company, but the greater part is devoted to a description of the plant installed at the new Southern Terminal station at Boston.

SANITARY APPLIANCES.—United States Sanitary Co., Washington, D. C. Paper; 4 × 6 ins.; pp. 4; illustrated.

This is an announcement that the company named has added to its line of water-tight metal carts for collecting garbage, night soil and ashes, the Edison diaphragm pump for emptying cesspools and the Witt corrugated ash and garbage can. Prices are quoted.

LOCOMOTIVES.—Baldwin Locomotive Works, Philadelphia, Pa. Paper; 9 × 6 ins.; pp. 32; illustrated.

This pamphlet contains a view of Vladivostok with the Baldwin engines in course of erection for the Chinese Eastern Ry. There are also views of the compound consolidation engines for Bavaria; engines for Mexico, and several passenger and freight engines for American railways.

ELECTRIC-PLANT MACHINERY. — Ernest Scott & Mountain, Ltd., Newcastle-on-Tyne, Eng. Cloth; 8½ × 11 ins.; pp. 175; illustrated.

The above company manufactures machinery for all sorts of installations involving the use of electricity, including dynamos, motors, steam and gas engines, steam boilers, water-wheels, electric pumping, hoisting and mining machinery, electric apparatus for heating and welding and electric launches. These are fully described with illustrations and tables of dimensions and prices in the present catalogue. This company undertakes the complete design and equipment of plants, and the latter part of the book is devoted to a description of a number of plants installed by it. The entire catalogue will be of interest to American engineers, as illustrating the marked difference between English and American practice in the designing of electrical machinery.

STEEL RAILS AND SPLICE-BARS.—Carnegie Steel Co., Pittsburg, Pa. Leather; 11¼ × 8 ins.; pp. 90; illustrated.

This book of standard steel rails and splice-bars gives the standard specifications of the Carnegie Co. for steel rails and splice-bars, its standard for drilling rails of all sizes, and punching splice-bars and the specifications for steel track-bolts and spikes. This is followed by full-size sections of every type of rail and splice-bar made by the company, with all dimensions and ranging from a height of 6¼ ins. and 110 lbs. per yard to a rail 2¾ ins. high and weighing 25 lbs. per yard. Opposite each of these sheets of sections is a list of railways using that particular type of rail.

## CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

| Bids to be opened | Work. | Place. | See Eng. News. |
|---|---|---|---|
| July 19. | Reservoir, | Lestershire, N. Y. | July 12 |
| July 19. | Brick sewers, | Amsterdam, N. Y. | July 12 |
| | Advertised, Engineering News, July 12. | | |
| July 19. | Pipe sewers, | Des Moines, Ia. | July 12 |
| July 19. | State Canal work, | Albany, N. Y. | July 12 |
| | Advertised, Engineering News, July 12. | | |
| July 19. | Sea wall, etc., | New York, N. Y. | July 12 |
| July 19. | Repairing steamer, etc., | New York, N. Y. | July 12 |
| July 19. | Wooden bridges (2), | Albany, N. Y. | July 12 |
| | Advertised, Engineering News, July 12. | | |
| July 19. | Paving, | Buffalo, N. Y. | July 12 |
| July 19. | Street improvements, | Bessemer, Ala. | July 12 |
| July 19. | Asphalt paving, | Spokane, Wash. | July 12 |
| July 19. | Excavating, | Cincinnati, O. | June 21 |
| | Advertised, Eng. News, June 21 to July 12. | | |
| July 19. | Completing hall of records, | New York | June 28 |
| July 19. | School houses (2), | Fall River, Mass. | July 19 |
| July 19. | Paving, | Pontiac, Ill. | July 19 |
| July 20. | Electric plant, | Stephen, Minn. | July 19 |
| July 20. | Drainage, | New Castle, Ind. | July 19 |
| July 20. | School house, | Cambridge, Vt. | July 19 |
| July 20. | Sewers, | Philadelphia, Pa. | July 19 |
| July 20. | Water-works, | Stephen, Minn. | July 19 |
| July 20. | Paving, | Coshocton, O. | July 19 |
| July 20. | Repairing Armory, | Schenectady, N. Y. | July 19 |
| July 20. | Paving, | Mansfield, O. | July 19 |
| July 20. | Pumping engine, | Millersburg, O. | June 28 |
| July 20. | Court house, | Ithaca, Mich. | June 28 |
| July 20. | Repairing vessel, | Little Rock, Ark. | June 28 |
| | Advertised, Eng. News, June 28 to July 12. | | |
| July 20. | Pipe sewers, | Crawfordsville, Ind. | June 28 |
| July 20. | Sewer, | Cincinnati, O. | July 5 |
| July 20. | Steel work for building, | Lancaster, O. | July 5 |
| July 20. | Draw-bridge, | New Haven, Conn. | July 5 |
| July 20. | Bridge bonds, | Paterson, N. J. | July 12 |
| July 20. | Pier, | Montreal, Que. | July 12 |
| July 20. | Fire engines, | Pittsburg, Pa. | July 12 |
| July 20. | Dredging, | Collingwood, Ont. | July 12 |
| July 20. | Exhaust system, | New York, N. Y. | July 12 |
| July 20. | Railway construction, | Troy, N. Y. | July 12 |
| | Advertised, Engineering News, July 12. | | |
| July 20. | Reservoirs, piping, etc., | Audubon, Minn. | July 12 |
| July 20. | Deep well, | Fort Carroll, Md. | July 12 |
| July 20. | Paving materials, | New York, N. Y. | July 12 |
| July 20. | Curbing, | Warsaw, O. | July 12 |
| July 21. | Disinfecting barge, etc., | Beloxi, Miss. | July 12 |
| July 21. | Railway grading (3 mls), | Richmond, Va. | July 12 |
| | Advertised, Eng. News, July 12 and 19. | | |
| July 21. | Addition to school, | Dayton, O. | July 12 |
| July 21. | Gravel road, | Thompson, Conn. | July 12 |
| July 21. | State roads, | Albany, N. Y. | July 12 |
| | Advertised, Eng. News, July 12 and 19. | | |
| July 21. | Brick paving, | Oshkosh, Wis. | July 12 |
| July 21. | Sewers, | Washington, D. C. | July 5 |
| | Advertised, Engineering News, July 5. | | |
| July 21. | School house, | West Toledo, O. | July 5 |
| July 21. | Repairing buildings, | Ashtabula, O. | July 5 |
| July 21. | School house, | Washington, D. C. | July 5 |
| July 21. | Rebuilding pier, | Cleveland, O. | July 5 |
| July 21. | Ordnance supplies, | Governor's Isld, N.Y.H. | June 28 |
| July 21. | Jail building, | Arkansas City, Ark. | July 19 |
| July 21. | Brick paving, | Akron, O. | July 19 |
| July 21. | School house, | Burnside, Pa. | July 19 |
| July 21. | Street grading, | Washington, D. C. | July 19 |
| | Advertised, Engineering News, July 19. | | |
| July 21. | Brick paving, | Corning, N. Y. | July 19 |
| July 21. | Sewer, | Akron, O. | July 19 |
| July 23. | Removing wreck, | New York, N. Y. | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | | |
| July 23. | Sewer pipe (c.-i.), | Houston, Tex. | June 28 |
| | Advertised, Eng. News, June 28 and July 5. | | |
| July 23. | Sewage purification plant, | Houston, Tex. | June 28 |
| | Advertised, Eng. News, June 28 and July 5. | | |
| July 23. | Sewage pumping plant, | Houston, Tex. | June 28 |
| | Advertised, Eng. News, June 28 and July 5. | | |
| July 23. | Masonry piers (8), | Boston, Mass. | June 28 |
| | Advertised, Eng. News, June 28 to July 12. | | |
| July 23. | Brick paving, | Stryker, O. | July 5 |
| | Advertised, Engineering News, July 5. | | |
| July 23. | Stone culvert, | South Bend, Ind. | July 5 |
| July 23. | Steel bridge, | Monticello, Mo. | July 5 |
| July 23. | School house, | Pine Ridge, S. Dak. | July 5 |
| July 23. | School house, | Youngstown, O. | July 5 |
| July 23. | Steel projectiles, | Washington, D. C. | July 5 |
| July 23. | Cast-iron projectiles, | Washington, D. C. | July 5 |
| July 23. | School house, | Whetstone, O. | July 12 |
| July 23. | Water bonds, | Hallock, Minn. | July 12 |
| July 23. | Street improvements, | Lafayette, Ind. | July 12 |
| July 23. | Bridge, | New York N. Y. | July 12 |
| July 23. | Steel bridge, | Jersey City, N. J. | July 12 |
| July 23. | Electric plant, | Galesburg, Ill. | July 19 |
| | Advertised, Engineering News, July 19. | | |
| July 23. | Macadam paving, | Bloomfield, Conn. | July 19 |
| July 23. | Bridge, | Santa Cruz, Cal. | July 19 |
| July 24. | Fire wagon, | Hamilton, O. | July 19 |
| July 24. | Iron bridges (4), | Covington, Ind. | July 19 |
| July 24. | Wells, | Washington, D. C. | July 19 |
| July 24. | Water-works, | Gowrie, Ia. | July 19 |
| July 24. | Steel bridges (2), | Peoria, Ill. | July 19 |
| July 24. | Dormitory, etc., | Winnebago, Neb. | July 12 |
| July 24. | Naval supplies, | Mare Island, Cal. | July 5 |
| July 25. | Fire apparatus, | Lexington, Ky. | June 28 |
| | Advertised, Eng. News, June 28 to July 12. | | |
| July 25. | Repairing breakwater, | Petoskey, Mich. | June 28 |
| | Advertised, Eng. News, June 28 to July 19. | | |
| July 25. | Stable building, | Ft. Hamilton, N. Y. | June 28 |
| | Advertised, Eng. News, June 28 to July 19. | | |

July 25. Garbage collecting, etc., Hoboken, N. J. ..... July 5
July 25. Hospital building, Toledo, O. ..... July 5
July 25. Buildings for plant, Richmond, Va. ..... July 12
July 25. Bridge abutments, etc., Buffalo, N. Y. ..... July 12
July 25. Repairing fire houses, New York, N. Y. ..... July 19
July 25. Sewers, Brooklyn, N. Y. ..... July 19
July 25. Steel bridges (2), Peoria, Ill. ..... July 19
July 25. school house, Brooklyn, N. Y. ..... July 19
July 25. Drill hall, Windsor, Ont. ..... July 19
July 25. Drafting materials, Washington, D. C. ..... July 19
July 25. Electric plant bonds, Evergreen, Ala. ..... July 19
July 25. Asphalt, Winnipeg, Man. ..... July 19
July 26. Paving, etc., New York, N. Y. ..... July 19
July 26. Hotel building, Millinocket, Me. ..... July 19
July 26. School house, Mifflin, O. ..... July 19
July 26. Steel bridge, Peoria, Ill. ..... July 19
July 26. Hospital buildings, Newark, N. J. ..... July 12
July 26. Sewers, Baton Rouge, La. ..... July 12
Advertised, Eng. News, July 12 and 19.
July 26. School house, Mayfield, O. ..... July 12
July 26. Paving, Lima, O. ..... July 12
July 26. Brick paving, Findlay, O. ..... June 21
Advertised, Eng. News, June 21 and 28.
July 27. Electrical machinery, Massillon, O. ..... July 5
July 27. Bridge superstructure, Logan, Utah ..... July 12
Advertised, Engineering News, July 12.
July 27. Bridge repairs, St. Joseph, Mo. ..... July 19
July 27. Electric plant, Saginaw, Mich. ..... July 19
July 27. Breakwater, Ottawa, Ont. ..... July 19
July 28. Hof water plant, Carthage, O. ..... July 19
July 28. Block paving, Marinette, Wis. ..... July 19
July 28. Improving streets, Youngstown, O. ..... July 19
July 28. School building, Washington, D. C. ..... July 12
Advertised, Engineering News, July 12.
July 28. Water tower foundation, E. Cleveland, O. .. July 12
July 28. Lowering suction mains, Yonkers, N. Y. ... July 12
Advertised, Engineering News, July 12.
July 28. Pumping engine, Yonkers, N. Y. ..... July 12
Advertised, Engineering News, July 12.
July 28. Paving, Marion, O. ..... June 28
July 30. Rip-rap jetty, New York, N. Y. ..... June 28
Advertised, Eng .News, June 28 to July 19.
July 30. Jetty work, Galveston, Tex. ..... July 5
Advertised, Eng. News, July 5 to 23.
July 30. Electric lighting, Tiffin, O. ..... July 5
July 30. Hire of dredge, Galveston, Tex. ..... July 12
Advertised, Eng. News, July 12 to 26.
July 30. Steel bridges (2), Clifton Forge, Va. ..... July 12
July 30. Completing turnpikes, Ironton, O. ..... July 19
July 30. Fire building, South Framingham, Mass. ... July 19
July 30. Sewer, Toledo, O. ..... July 19
July 30. Pipe sewers, Rawlins, Wyo. ..... July 19
Advertised, Eng. News, July 19 and 26.
July 30. Heating plant, Newport, Ky. ..... July 19
July 30. Boiler house, Mare Island, Cal. ..... July 19
July 30. Hospital addition, Newport, R. I. ..... July 19
July 31. Brick paving, Sewickley, Pa. ..... July 19
July 31. Hospital buildings, New Orleans, La. ..... July 12
July 31. Paving, Mingo Junction, O. ..... July 5
July 31. Improving harbor, Montevideo, Uruguay .. Mar. 1
Aug. 1. Steam plant for W.-wks, Alexandria, La. .. July 12
Advertised, Eng. News, July 12 and 19.
Aug. 1. Arc lighting, Buenos Ayres, Argentine .... May 3
Aug. 1. Electric plant, Lawrenceburg, Ind. ..... June 21
Advertised, Eng. News, June 21 to July 5.
Aug. 1. Officers' quarters, San Francisco, Cal. .... July 5
Aug. 1. School house, Old Town, Me. ..... July 12
Aug 1. Brick paving, E. Liverpool, O. ..... July 12
Aug. 1. Paving, Roanoke, Va. ..... July 12
Aug. 1. Completing state house, Columbia, S. C. .... July 12
Aug. 1. Sewers, Alexandria, La. ..... July 19
Advertised, Eng. News, July 19 and 26.
Aug. 1. Electric plant, Orion, Ill. ..... July 19
Aug. 1. State house, Columbia, S. C. ..... July 19
Aug. 1. Stable building, Fort Adams, R. I. ..... July 19
Aug. 2. Bonds, Arnprior, Ont. ..... July 19
Advertised, Eng. News, July 19 and 26.
Aug. 2. Water bonds, Arnprior, Ont. ..... July 19
Advertised, Eng. News, July 19 and 26.
Aug. 2. Dredging, Washington, D. C. ..... July 12
Aug. 2. County roads, Toledo, O. ..... June 28
Aug. 4. Paving, Canton, O. ..... July 19
Aug. 4. Building turnpikes, Van Wert, O. ..... July 19
Aug. 4. Repairing arsenal, Philadelphia, Pa. ..... July 19
Aug. 6. Bridge, Natchitoches, La. ..... June 28
Aug. 6. High school, Cleveland, O. ..... July 5
Aug. 6. Lock tenders' house, Cincinnati, O. ..... July 12
Aug. 6. Pipe sewers, Toledo, O. ..... July 12
Aug. 6. Paving, Toledo, O. ..... July 12
Aug. 6. Barracks, etc., Astoria, Ore. ..... July 12
Aug. 6. Pumping engines, Orange, N. J. ..... July 19
Aug. 6. Bridge superstructure, Chicago, Ill. ..... July 19
Advertised, Eng. News, July 19 to Aug. 2.
Aug. 6. Brick paving, Middletown, O. ..... July 19
Aug. 6. Penitentiary addition, Walla Walla, Wash. July 19
Aug. 7. Light house, Norwalk Harbor, Conn. ..... July 19
Advertised, Eng. News, July 19 to Aug. 2.
Aug. 7. Highway bridge, Milwaukee, Wis. ..... July 19
Aug. 7. Water-works, Pierson, Ia. ..... July 19
Aug. 7. Building, etc., Ellis Island, N. Y. H. ..... July 19
Aug. 7. Arch culvert, Cincinnati, O. ..... July 12
Aug. 7. Iron bridges (3), Vincennes, Ind. ..... June 21
Aug. 7. Heating plant, Vincennes, Ind. ..... June 21
Aug. 8. Dredging, Chicago, Ill. ..... June 14
Aug. 8. Steel bridge, Russellville, Mo. ..... July 12
Aug. 9. Bridge approaches, New York, N. Y. ..... July 12
Advertised, Eng. News July 12 to Aug. 2.
Aug. 9. Asylum buildings, Decatur, Ind. ..... June 14
Aug. 8. Bridge, Chicago, Ill. ..... July 19
Aug. 9. Supplies, Tompkinsville (S. I.), N. Y. ..... July 19
Advertised, Eng. News, July 19 and 26.
Aug. 9. Brick paving, Jacksonville, Fla. ..... July 19
Aug. 10. Steel bridge, Camden, N. J. ..... July 19
Advertised, Eng. News, July 19 and 26.
Aug. 10. Electric plant, Lakewood, O. ..... July 19
Aug. 10. Armor for vessels, Washington, D.C. ..... June 28
Aug. 11. Dredging, Chatham Harbor, Mass. ..... July 12
Advertised. Eng. News, July 12 to Aug. 2.
Aug. 13. Bridges (10), Wabash, Ind. ..... July 19
Aug. 13. Dormitory, etc., Agricultural College, Miss. July 19
Aug. 14. Coaling plant, Frenchmen's Bay, Me. ..... July 19
Aug. 14. Hall of records, Modesto, Cal. ..... July 19
Aug. 14. Excavation, etc., New York, N. Y. ..... July 12
Advertised, Eng. News, July 12 to Aug. 2.
Aug. 16. Dredging, Portsmouth, N. H. ..... July 19
Advertised, Eng. News, July 19 to Aug. 9.
Aug. 16. Hospital buildings (2), Athens, O. ..... July 19
Aug. 16. Paving, Findlay, O. ..... July 19
Aug. 16. Valves, water pipe, etc., Washington, D.C. .. July 19
Advertised, Eng. News, July 19 and 26.
Aug. 18. Jail building, Bennettsville, S. C. ..... July 12
Aug. 21. Court house, Blue Ridge, Ga. ..... July 5
Sept. 1. Bridge, Sydney, New South Wales ..... Mar. 15
Advertised, Engineering News, March 15.
Sept. 1. Pumping engine, etc., Indianapolis, Ind. ... July 12
Sept. 12. Dredging, Chicago, Ill. ..... July 19
No date. Railway work, Wheeling, W. Va. ..... July 5
No date. Building materials, Rossville, Kan. ..... July 12
" . Building materials, Ponca, Okla. Ter. ..... July 12
" . Plumbing supplies, Pierre, S. Dak. ..... July 12

NOTICE TO READERS.—Although every possible effort is made to verify the reports of new construction before their publication in these columns, complete verification is not always possible. When it becomes necessary to publish news whose accuracy has not been verified, the words "according to reports," "if is stated," or other expressions of similar import are attached to the item. We will be obliged to our readers if they will send us prompt reports of any work in which they may be interested, and also to call our attention to any important errors that may be noticed in these columns, and give us the correct details. When writing to persons and companies mentioned in this department, our readers will confer a favor by mentioning Engineering News as the source of their information.

## RAILWAYS.

**(For foreign railway news see under "Foreign Contract and Export News.")**

ALGERNA CENTRAL.—A contract is reported to have bee niet to Foley Bros., St. Paul, Minn., for constructing 100 miles of this road from Sault Ste. Marie, Mich., to the Canadian Pacific R. R. The work will include a large dock at Sault Ste. Marie, heavy bridge work and a large amount of rock blasting. Operations will be started at once.

ARIZONA & NEW MEXICO.—H. J. Simmons, Ch. Engr., Clifton, Ariz., informs us that nothing further than a reconnoissance has been made on the proposed extension to El Paso, Tex. It is not yet decided whether the line will be built.

BELLAIRE & VALLEY JUNCTION.—It is reported that a short railway, to be known by this title, is being surveyed from a point on the Wheeling & Lake Erie, near Adena, O., to Bellaire. The road will tap extensive coal fields in Bellmont and Jefferson counties.

BERKLEY & SOUTH NORFOLK R. R. & TERMINAL CO.—Incorporated in Virginia, with from $5,000 to $10,000 capital stock, to build a railway and do a general storage and transportation business in Berkley, Va. W. W. Tunis, Pres.; W. L. Berkley, Vice-Pres.; Matt. M. Tunis, Secy. and Treas.

BURLINGTON, CEDAR RAPIDS & NORTHERN.—Rights of way and a site for a depot in Owatonna, Minn., are being secured by the agents of this company, according to reports. Garrett Davis, Asst. Ch. Engr., Cedar Rapids, Ia.

CALIFORNIA.—The J. E. Terry Lumber Co., Redding, has been granted a franchise by the supervisors to extend its branch railway, leading from Bella Vista to the main line, to Anderson. The branch will be about 15 miles long.

CAMDEN, MOSCOW & SAN AUGUSTINE.—At the annual meeting of the stockholders it was ordered that the dividend be passed and the road be extended at once to a connection with the Huntington system. W. T. Carter, Pres., Camden, Tex.

CHICAGO GREAT WESTERN.—Official announcement that the company will appropriate $3,000,000 for improving the system is reported to have been made. It is stated that the plans contemplate the expenditure of $1,000,000 on new equipment, princ.pally in the freight department. Many new box cars will be purchased. The bulk of the remaining $2,000,000 will be expended in various improvements all along the line, special attention being paid to the work at Chicago and Kansas City. H. Fernstrom, Ch. Engr., St. Paul, Minn.

CLEVELAND, AKRON & COLUMBUS.—The directors voted July 13 to issue bonds to the amount of $4,000,000 for improvements. H. W. Byers, Supt., Akron, O.

COLORADO & NORTHWESTERN.—Chas. B. Culberton, Gen. Mgr., Boulder, Colo., informs us that no new lines or extensions are proposed by this road.

DELAWARE, LACKAWANNA & WESTERN.—This company is said to have acquired control of the Bangor & Portland Ry., which connects with the company's line at Portland, Pa., and extends to the slate regions of Branger, Pen Argyle and Wind Gap in Northampton county, about 40 miles long. President Truesdale has confirmed the report.

DELAWARE & HUDSON.—Jas. MacMartin, Ch. Engr., Albany, N. Y., informs us that the company does not contemplate making an extension in Pennsylvania, as recently reported.

DOTHAN, HARTFORD & FLORIDA.—It is reported as a certainty that this road, which will run from Dothan, through Hartford and Chirpley, to St. Joseph, Fla., will be built. F. P. Pelham and W. A. Powell are interested.

FRANKLIN & KENNEBEC.—An extension of this road to Oakland, Me., and possibly to Waterville, is in prospect for this fall. Surveys have been made from New Sharon to Oakland.

GALVESTON & WESTERN.—The Texas Railroad Commission is reported to have authorized the issuance of $300,000 of the $500,000 authorized by the stockholders of this company, to be used for reconstruction, extension and equipment.

GREAT NORTHERN.—A decision has been reached by Jas. J. Hill, Pres., and those in consultation regarding the proposed new route into Great Falls, Mont., and the route chosen is the survey of A. F. Whitcomb, Engr. It is stated that the construction of the new line will be started at once by Chas. Follette, contractor, St. Paul, Minn. The work will be quite heavy in some places and the cost, including a new steel bridge over the Missouri River, will amount to about $500,000. J. F. Stevens, Ch. Engr., St. Paul, Minn.

GURDON & FORT SMITH.—N. W. McLeod, Vice-Pres., St. Louis, Mo., informs us that the surveys and work of obtaining rights of way have been completed, and the capital has been secured. The contract for constructing the line will be let in about 30 days. The road will extend from Gurdon to Shawmut, Ark., about 30 miles. Wm. Grayson, Pres., St. Louis.

IDAHO EXTENSIONS.—W. H. Kennedy, Ch. Engr., Portland, Ore., informs us that surveys have been completed for this line, which will run from a point near Wardner, Idaho, to Last Change Tunnel, about 4.5 miles. The contract will probably be let in a week or so. Joseph Perrault, Pres., Boise Cty, Idaho.

JAMESTOWN MANUFACTURERS' TERMINAL.—Incorporated to build a road through the manufacturing section of Jamestown, Ky., to be about 2½ miles in length. The company has a capital stock of $50,000. Wm. F. Endress, Samuel Briggs and Julius D. F. Rich, Jamestown, are interested.

LAKE ERIE & DETROIT RIVER.—Owen McKay, Ch. Engr., Walkerville, Ont., informs us that parties are now engaged in the purchase of the right of way for the proposed road through Ridgetown, Rodney, West Lorne, Dulton, Sheddon and St. Thomas, about 43 miles. As soon as financial matters have been arranged, the construction will be started. The road bed will be laid with 70-lb. rails, purchased from the Carnegie Steel Co. The surveys for the extension were made in February and March and the plans and profits were submitted to the Canadian Government on July 7 and were approved June 23. (See issue of July 5.)

LOUISVILLE & ATLANTIC.—The Beattyville & Cumberland Gap R. R. is said to have been purchased by this company. Work is to be started at once on an extension of the former from Irvine, Ky., to Millers Creek, and the latter from Beattyville, Ky., to Sturgeon Creek, opening upon a fine coal and timber territory. M. M. Browning, Supt., Versailles, Ky.

MATTOON & EASTERN.—Incorporated in Illinois to construct a road from Mattoon, southeasterly through the counties of Coles, Cumberland, Jasper, Richland, Edwards and White, Ill., to the boundary line between the states of Illinois and Indiana, connecting there with the railway extending through the counties of Posey and Vanderburgh, Ind., to Evansville. The company will also operate that portion of the Evansville division of the Peoria, Decatur & Evansville Ry., beginning at Mattoon, at the intersection of the Cleveland, Cincinnati, Chicago & St. Louis Ry., and extending southwesterly through the counties of Coles, Sumberland, Jasper, Richland, Edwards and White to the boundary line between White county, Ill., and Posey county, Ind. John G. Welling, J. T. Harahan, William G. Bruen, Chicago, are incorporators.

MEMPHIS & ST. LOUIS.—C. M. Barnes, Supt., New Madrid, Mo., informs that one route for the company's line, Portageville to Hayti, Mo., 14 miles, has been surveyed, but it is not definitely decided on. Part of the capital has been secured. The company has not determined whether the construction will be contracted for or not. Mr. Barnes states that the proposed line will run over a level, heavy timbered district. Seth S. Barnes, Pres., New Madrid; E. C. Randolph, Ch. Engr., Caruthersville.

NEW YORK, CHICAGO & ST. LOUIS.—Plans are being perfected for an extension from Knox, Ind., to the north end of Bass Lake, about eight miles. E. E. Hart, Engr., Cleveland, O.

NEW YORK & PENNSYLVANIA.—It has been decided to extend the road from Millport to Shingle House, Pa., about five miles. Work will commence at once. G. W. Pierce, Ch. Engr., Canisteo, N. Y.

NORTHERN R. R. OF NEW JERSEY.—It is stated the company will issue $1,000,000 in bonds, of which about $200,000 will be used for improvements and equipment. T. H. Pindell, Supt., Jersey City, N. J.

PENNSYLVANIA.—Reports from Canonsburg state that the Midland Coal Co. will soon begin work on a railway from Houstonville, on the Pittsburg, Cincinnati, Chicago & St. Louis Ry., to a point about McConnell's Mills, about three miles distant.——It is reported that surveyors are at work on a route for a road from Greensburg to Parnassus, about 18 miles. A connection will be made with the Allegheny Valley Ry.

PRINCETON & WISCONSIN.—Incorporated in Wisconsin with $750,000 capital stock to build a railway to run from Princeton to Necedah, through Juneau, Adams, Marquette and Green Lake counties, about 50 miles. R. H. Crandell, Robt. Jones and W. H. Hopkins, Chicago, Ill.

ST. LOUIS, SAN FRANCISCO & TEXAS.—The council of Sherman, Tex., has passed an ordinance granting the company a right of way through certain streets in that city. D. Robinson, Ford Bldg., Denison, Tex.

SEARCY & DES ARC.—Geo. C. Griffith, Pres., and John T. Hicks, Supt. and Gen. Mgr., Searcy, Ark., are reported to have gone to Stuttgart, Ark., in the interest of the consolidation of Stuttgart & Arkansas River road with this line, and in the proposed extension of the former from to either Hazen or Devall's Bluff, about 37 miles.

SEBASTICOOK & MOOSEHEAD.—A. B. Thompson, Receiver, Hartland, Me., has been authorized to issue bonds to the amount of $40,000 for the proposed extension to Harmony, Me., and additional equipment to the existing line.

SILVERTON, GLADSTONE & NORTHERLY.—Geo. H. Barnes, Secy., Silverton, Colo., informs us that nothing will be done this year towards extending the road from Gladstone to Lake City.

SIOUX FALLS & NORTHWESTERN.—D. L. McKinney, Sioux Falls, S. Dak., writes us that surveys and the work of securing right of way for this line of 120 miles has just been started. The date of letting contracts is not determined. W. B. Howe, Ch. Engr., Sioux Falls.

SPARTANBURG & CLINTON.—Incorporated in South Carolina, according to reports, with $250,000 capital stock. The road will be a branch of the Seaboard Air Line, about 45 miles long, and will connect that road at Clinton, S. C.

TOLEDO & EAST ST. LOUIS.—Incorporated in Illinois to construct a road from a point on the boundary line between Illinois and Indiana to a point on the Mississippi River in the vicinity of East St. Louis, Ill. The capital stock is $1,500,000. Albert Rathbone, New York; Arthur Dyrenforth, Chicago, and H. M. Carter, Evanston, Ill., are incorporators.

TOLEDO, KANSAS CITY & WESTERN.—This company has been incorporated in Indiana as a reorganization of the Toledo, St. Louis & Kansas City. Capital stock, $20,000,000. James N. Wallace, Arthur H. Van Brunt, and J. Edwards Wyckoff, New York, are directors.

UNION STATION CO.—This company has been formed in Georgia to build a union passenger station and terminal in Savannah, to be used by the Seaboard, Southern and Plant railways systems. The company will be capitalized at $300,000. It will build and control about eight miles of track, on which work will be started in about six weeks.

VIRGINIA.—J. Walter Hosler, Suffolk, Va., one of the projectors of the railway from Suffolk to Elizabeth City, N. C., is reported as stating that a preliminary survey had already been started, and that sufficient capital has been subscribed to begin preliminary work. The road will be about 40 miles in length. S. S. Lamb & Bro., Elizabeth City, N. C., are among the promoters.

WEST SIDE BELT.—Reports state that this road is to be extended for a distance of 15 miles, opening up new coal fields in Jefferson and Baldwin townships, Pa. A. S. Petrie, Secy., Pittsburg, Pa.

## STREET AND ELECTRIC RAILWAYS.

BOSTON, MASS.—Plans are being prepared for the construction of the new electric line, to be known as the Boston & Concord St. Ry. The line will start at the northerly side of the Boston & Maine tracks in Belmont and extend through Lexington and Lincoln to the public square in Concord. It is also proposed to build a branch track in Lexington, extending through Woburn to the westerly side of the Boston & Maine tracks on Pleasant St., the terminus in Woburn. The proposed track will be about 18 miles in length. Capital stock, $175,000. Oliver M. Dennett, Brookline; Frank E. Cotton, Woburn; Erastus H. Smith, Concord, and others are interested.——The railroad commissioners have given a hearing on the petition of the Lynn & Boston R. R. to issue $1,500,000, in

new stock. The issue is proposed to take up $940,000 in coupon notes, to provide new equipment and to increase the power-house capacity.

MILFORD, MASS.—The board of directors of the Milford, Attleboro & Woonsocket St. Ry. Co. have voted to begin the construction at once of the line from Milford to Westboro. It is expected to have the road completed by Sept. 1.—It is reported that the Milford, Holliston & Framingham, the Milford, Attleboro & Woonsocket, and the Westboro & Hopkinton St. Ry. companies have combined their interests.

SPRINGFIELD, MASS.—Local papers state that the Springfield St. Ry. Co. proposes to increase its capital stock by several hundred thousand dollars, to provide for improvements to equipment and for new extensions. J. Olmstead, Pres.

BRIDGEPORT, CONN.—Local papers announce the organization of the Moodus & East Hampton Ry. Co. and the Mutual Construction Co. The former has been organized for the purpose of building a trolley road to connect East Hampton and Moodus, about six miles. Plans for beginning the construction have already been made. The company is capitalized at $150,000. The Mutual Construction Co. is capitalized at $10,000, and will build the Moodus & East Hampton Ry. Co.'s line. E. S. Boyd, E. C. Crocker and Wm. A. Redden are directors of both companies.

HARTFORD, CONN.—The Hartford St. Ry. Co. has been granted permission to lay new tracks in certain streets in the city. F. Caum, Ch. Engr.

FISHKILL, N. Y.—The Mount Beacon-on-Hudson Association of Fishkill Landing has been incorporated with $150,000 capital stock, to build an inclined surface elevator to the top of the Fishkill Mountains, in this town. Wilbur H Weston, Newburgh; Weldon F. Weston, Fishkill, and Frank E. Boyd, Manchester, N. H., are directors.

LONG ISLAND CITY (L. I.), N. Y.—The directors of the Queens Borough & Nassau County Ry. Co. have adopted a resolution requesting the railroad commissioners to set a date on which to give a hearing to the company's application for a franchise to build a road from the city line of New York city, in Queens Borough, to the Village of Hempstead, about seven miles. Joseph Bemiel, Pres., Middle Village; P. G. J. Mara, Vice-Pres., Flushing; W. L. Woodill, Secy., Long Island City.

LYONS, N. Y.—It is stated that James D. Bushford and Calvin Hotchkiss, Lyons, have secured the necessary rights of way between this town and Sodus for an electric railway.

NEW YORK, N. Y.—Judge Lacombe, of the United States Circuit Court, has authorized William Jay, receiver for the Forty-second St., Manhattanville and St. Nicholas Ave. R. R. Co., to contract with Naughton & Co., 258 Broadway, for the completion of the road in 42d St., at a cost not to exceed $194,056. A contract with the Lorain Steel Co. for special work for crossings is also authorized, to cost about $33,755.

PENN YAN, N. Y.—An extension will be built to the Penn Yan, Kenka Park & Branchport Ry., giving a line to Roff's Landing or Pulteney, about seven miles further. The rights of way have been offered. There are several routes under consideration, but the one circling the swamp at Branchport and thence along the lake shore will probably be chosen. It is probable that the line will be completed at an early date.

MT. HOLLY, N. J.—The board of freeholders granted a franchise to the Camden & Suburban Ry. Co. for its extension from Camden county line to the villages of Riverton and Palmyra.

NEWARK, N. J.—It is stated that North Jersey St. Ry. Co. will soon proceed to secure franchises for an extension from the present terminus of the line in Orange, near East Orange, to this city. The company proposes to rebuild the Orange line from East Orange through to the terminus in West Orange. J. G. Elliott, Ch. Engr.

KUTZTOWN, PA.—J. S. Trexler writes us that about one-half of Allentown & Kutztown Electric Ry. has already been built. All other work has been completed. The road will be 20 miles in length.

PITTSBURG, PA.—Improvements are proposed by the Consolidated Traction Co., which will call for an expenditure of $200,000. W. K. Schoepf, Gen. Mgr.——Surveys are being made by the McKeesport, Duquesne & Wilmerding St. Ry. Co. for a branch line between McKeesport and Wilmerding. It is stated that the construction will be started within a month. M. French, Ch. Engr., McKeesport.

PITTSBURG, PA.—The Pittsburg & Homestead Improvement Co. is reported to have awarded the contract for the new branch line at New Homestead, on which work will be started at once. The work will cost about $30,000, and will be completed about fall.

GAINESVILLE, GA.—The proposition offered by J. W. Adams, Pres., Dahlonega Consolidated Gold Mining Co., concerning the building of an electric railway system over the principal streets of Gainesville with a road to Dahlonega, has been favorably received by the citizens. It is stated work will be started soon providing that franchises, rights of way and $10,000 is donated towards the construction.

FLORENCE, ALA.—E. A. Schubert, Fostoria, O., informs us that a charter for the Florence St. Ry. Lighting & Power Co. has been applied for. The company will be capitalized at $150,000, and will begin surveys for a line around Florence, about eight miles in length, about Aug. 1. Coleman & Moloches, Engrs., New Orleans, La.

KNOXVILLE, TENN.—Local papers state that the Knoxville Traction Co. will make an extension in South Knoxville, and will probably extend the belt road in West Knoxville towards Lyons View. It is proposed to build the new lines this year. C. C. Howell, Gen. Mgr.

DAYTON, O.—The Miami Valley Ry. Co. has adopted an amendment permitting the construction of an extension from this city to St. Mary's, on state canal property. L. M. Flesh, Secy. and Treas., Piqua.

TOLEDO, O.—The Toledo Traction Co. has been granted a franchise for an extension of its line on Woodville St. O. E. Olson, Ch. Engr.

INDIANAPOLIS, IND.—Horace G. Stillwell, Pres., Central Traction Co., is reported as stating that arrangements have been completed for the building of the proposed electric line from this city to Tipton. It is stated that bids will be called for soon for constructing the line. An effort will be made to extend the road to Elwood.

LAPORTE, IND.—L. B. Bradley, representing a syndicate of capitalists of Chicago, has made application to the council for a franchise for an electric line connecting Laporte and Michigan City. The road is expected to be in operation within six months.

DETROIT, MICH.—On July 14, articles of incorporation were filed at Lansing, Mich., for the new Pontiac, Orion & Detroit Ry. Co., with a capital stock of $200,000, $111,300 of which has already been subscribed by Detroit, Pontiac and Toledo capitalists. The company will operate between Pontiac, Orion and Oxford, and contemplates the purchase of the Pontiac Standard Lighting Co. It has already acquired the franchises and rights of way necessary for the construction and operation of its lines, and contracts will be awarded as soon as certain modifications are made in the franchises. A resurvey of part of the line will be made to shorten the distance by rail between the termini. The road will connect with the Oxford & Lapeer line, and will open a direct line to Flint, via the Rochester line, which is being extended to that point. The officials are Geo. E. Fisher, Pres., Detroit; Chas. W. Ryan, Vice-Pres., Toledo, O.; Frank Howard, Treas., Detroit; O. D. Chase, Secy., Detroit.

DETROIT, MICH.—The Hamtramck township board has granted an amendment to the franchise owned by D. W. Simons and John Winter. The amendment gives permission to use other streets, and an extension of 30 days in the time in which work was to be started. The road will be six miles long.

ADRIAN, MICH.—It is stated that work will be started at once on reconstructing the Adrian St. Ry., for which bonds have been floated. A. P. Southworth, Owner.

DES MOINES, IA.—The council has recommended the extension of the East Ninth St. car line to the college grounds.

BUFFALO, WYO.—The question of building an electric railway from this place to Clearmont is being considered by local capitalists. The grade between the two points will be easy, and plenty of water will be furnished from Clear Creek to generate the power.

PINE BLUFF, ARK.—W. H. Keiser, contractor, Chicago, has been granted a franchise by the council to build and operate an electric railway in this city. Construction will soon be started.

AUSTIN, TEX.—Ira H. Evans, receiver for the Austin Rapid Transit line is reported as stating that work will be started at once on the company's line. All necessary machinery for the company's power house has been purchased, and the line will be completed within six weeks.

OKLAHOMA CITY, OKLA.—The council is considering the question of granting a franchise for an electric street car line in this city. G. B. Stone is the chief promoter.

FLORENCE, COLO.—The Florence St. Ry. Co. has been incorporated with $500,000 capital stock, according to reports. Thomas Robinson, who holds the franchise, states that work will be started as soon as necessary arrangements have been made.

MONTREAL, QUE.—The Montreal St. Ry. Co. is reported to have let a contract to the Chambly Mfg. Co. for supplying the power to the company's street railway for a period of 23 years. The agreement provides that the Chambly Mfg. Co. shall supply 5,000 HP. a year at the rate of $25 per HP. a year. It is stated that the amount will aggregate $2,875,000 in 23 years.

## ELECTRIC LIGHT AND POWER.

FAIRPORT, N. Y.—The people of this village recently voted at a special election to issue $20,000 in bonds for erecting a municipal plant, according to reports.

ILION, N. Y.—The contract for the generating machinery for the new municipal plant is said to have been let to the General Electric Co., Schenectady, and for two 150-HP. engines to the Slater Engine Co., Warren, Mass.

SEA CLIFF (L. I.), N. Y.—Reports state that the Franklin Electric Illuminating Co. has secured permission to extend its lines to Oyster Bay. L. H. Gamp, Mgr.

HAGERSTOWN, MD.—The contract for erecting the new municipal plant, to cost about $50,000, will, it is stated, be let to the George A. Williams Co.

TAMAQUA.—It is stated that a special election will be held shortly to vote on the question of issuing $25,000 in bonds for erecting a plant.

NORFOLK, VA.—Press reports state that the Norfolk Heat, Light & Power Co. will issue $500,000 in bonds for enlarging and improving its plant.

DALTON, GA.—Sherry McAuley, Mayor, writes us that the city has purchased the gas plant from the private company, and will probably erect an electric plant next year.

JACKSONVILLE, FLA.—The question of enlarging the city plant, to cost about $8,750, is being considered, according to reports. R. N. Ellis, Supt.

EVERGREEN, ALA.—Bids are asked until July 21 for the purchase of $25,000 in bonds for erecting a plant and water-works. T. D. Jackson, Cy. Clk.

OPELIKA, ALA.—The Opelika Electric Light & Power Co. has shut down its plant. Reports state that it will be moved to another location. J. L. Renfro, Supt.; Geo. Lyons, Engr.

ALLIANCE, O.—The council has passed an ordinance providing for the issuance of $35,000 in bonds for erecting a plant and improving the water-works. J. H. McConnell, Cy. Clk.

LAKEWOOD, O.—Bids are asked until August 10 for erecting a plant complete. John French, Hamlet Clk.

MANSFIELD, O.—Reports state that the council is considering the question of erecting a plant.

DUNKIRK, IND.—The council has purchased the plant of the Dunkirk Electric Light & Power Co., according to reports.

GREENWOOD, IND.—It is stated that the council has decided not to grant a franchise for a plant and water-works this season.

MORRICE, MICH.—Press reports state that the electric plant was recently destroyed by fire; loss about $5,000.

SAGINAW, MICH.—Bids are asked until July 27 for erecting the new municipal plant. Alfred Davies, Clk. Bd. Pub. Wks.

CHICAGO, ILL.—We are informed that the contract for erecting the proposed plant at 39th St. and Low Ave. for the Calumet Portland Cement Co., 1310 Chamber of Commerce Bldg., has been let to W. T. Clark, Chamber of Commerce Bldg. The owners will purchase the machinery, etc. L. E. Stanhope, Arch., The Temple.

GALESBURG, ILL.—Bids are asked until July 23 for erecting a plant to contain one 200-HP. condensing engine and two 125-arc-light dynamos, as stated in our advertising columns. A. W. Truesdon, Cy. Clk.

ORION, ILL.—Bids are asked until August 1 for erecting a plant. R. J. Fullerton, Chn. Light Com. Bids were received July 10 for this work, but owing to a change in the plans were all rejected. New specifications will be prepared and will be ready about July 20.

DAYTON, IA.—This town will erect a municipal plant to cost about $10,000, according to reports.

STEPHEN, MINN.—Bids are asked until July 20 for installing a plant. Geo. A. Ralph, Engr., Crookston; J. A. Larson, Village Recorder.

SAN FRANCISCO, CAL.—We are informed that the Bay Counties Power Co. is a consolidation of the Nevada County Electric Power Co. and the Yuba Electric Power Co. and is this year extending its lines, being two parallel lines, from its main generating plant on North Yuba River to the Bay counties, and as far as Oakland, operating in all in twelve different counties in central portion of the state. Present installation is 14,000 HP.; cost of plant about $2,500,000. E. J. de Sabla, Jr., Pres. & Gen. Mgr.

NEW COMPANIES.—Croton Electric Light & Power Co., Cortland, N. Y.; $10,000; Jas. Murray, New York; H. M. Haviland, Brooklyn; J. R. Swain, Sing Sing.

## BRIDGES.

BANGOR, ME.—Specifications for the new granite abutments for the Franklin St. bridge across the Kenduskieg are being prepared by City Engineer Marston.

BRIDGEPORT, CONN.—The lowest bid received by the street committee for constructing the Artic St. bridge was submitted by Dowling & Bottomly, at $5,185. All bids were rejected, being in excess of the amount appropriated for the work. New bids will be called for.

MIDDLETOWN, CONN.—The proposition of building a more substantial bridge over Cotton Mill Hollow is being considered.

BUFFALO, N. Y.—Mayor Diehl has signed the resolution for the transfer of about $12,000 from an unused dredging fund to a fund of $25,000, ordered raised by the council for building a new bridge over Buffalo River at Seneca St.——The park commissioners committee has decided to build a new bridge over Park Lake in Delaware Park, for which $60,000 has been appropriated, according to reports. The old bridge is to be moved to Delaware Ave. For this work $7,000 has been appropriated.

CATSKILL, N. Y.—The contract for building a stone arch across the Cauterskill Creek at the foot of the Webber Hill, Kiskatom, was let by the town board on July 12 to Jehiel Vaughn, Stamford.

CAMDEN, N. J.—Bids are asked until Aug. 10 for constructing a steel highway bridge over Cooper's Creek, with one span 78 ft. long and 18 ft. wide, as stated in our advertising columns. James D. Wilkinson, Chn. Bridge Com.

WASHINGTON, D. C.—The district commissioners have directed the Melan Arch Construction Co., 21 Park Row, New York, to prepare plans, specifications and estimates for two arch bridges, one to be constructed across Rock Creek in the Zoological Park, the other across Piney Branch in the Rock Creek Park.

HYATTSVILLE, MD.—The York Bridge Co. has received a contract for constructing a bridge near Riverdale at about $3,000.

BRISTOL, VA.—The proposition of building an iron bridge across Beaver Creek is being agitated.

ATHENS, ALA.—A bridge across Elk River at Blair Ferry is proposed. The bridge will be midway between Athens and Florence and will be built jointly by the Limestone and Lauderdale counties.

MONTICELLO, MISS.—The board of supervisors awarded the contract July 6 for building a steel bridge across Pearl River, to Geo. H. Crafts, Atlanta, Ga., at $16,919.

COVINGTON, IND.—Bids are asked until July 24 for constructing four small iron bridges, according to reports. F. M. Hildebrand, Chn. County Comrs.

RICHMOND, IND.—The following bids were received by the council for constructing a bridge to replace the wooden bridge on the Middleboro Pike, recently washed away. The contract was let on July 12: Vincennes Bridge Co., $3,930; Anderson Bridge Co., $4,000; Lafayette Bridge Co., $3,833; Toledo Bridge Co., $3,970; New Castle Bridge Co., $3,819; Champion Bridge Co., $4,000; Variety Iron Works Co., $3,849; Massillon Bridge Co., $3,769 (accepted); Indiana Bridge Co., $3,850; Canton Bridge Co., $3,890.

WABASH, IND.—Bids are asked until Aug. 13 for constructing ten bridges. B. F. Clemans, County Audr.

CHICAGO, ILL.—Bids are asked until Aug. 6 for the construction of the superstructure for a single-track railway bridge across the Illinois and Mississippi Canal at Rock Falls, as stated in our advertising columns. Major J. H. Willard, U. S. Engr., 1637 Indiana Ave.——Bids are asked until Aug. 8 for constructing a bridge at Canal St. over the Chicago River. Wm. Boldenwerck, Pres. Bd. Trustees.

PEORIA, ILL.—Bids are reported wanted until July 24 for constructing a steel and iron bridge, 115 ft. long, over the Kickapoo River in Jubilee township, and a 42-ft. steel bridge over a creek in Timber township; until July 25 for two steel and iron bridges, 60 and 70 ft. long, over the Kickapoo River, in Elmwood township, and until July 26 for a 173-ft. steel bridge in Hollis township. Geo. C. Murray, Chn. Board and Bridge Com.

ROCKTON, ILL.—Steps are being taken by this town to construct an iron bridge across Turtle Creek near the state line on the Rockton road. The bridge will either have one 140-ft. span or two 80-ft. spans, and will cost about $4,000.

URBANA, ILL.—The following contracts were awarded July 10 by M. S. Ketchum, Engr., Champaign, for constructing highway bridges: 60 x 14-ft. bridge in Crittenden township, Indanapolis Bridge Co., Indianapolis, Ind., $1,687, 98 days; 40 x 14-ft. bridge in East Bend township, 20 x 24 ft. and 12 x 42-ft. bridges in Philo township, Attica Bridge Co., Attica, Ind., $832, 60 days; $614, 60 days, and $178, respectively.

BEAVERDAM, WIS.—Local papers state that the contract for building the new iron girder bridge on Beaver St. has been let to the Wisconsin Bridge & Iron Co., at $1,950.

MILWAUKEE, WIS.—Bids are asked until Aug. 7 for constructing a highway bridge across the Milwaukee River, from Grand Ave. to Wisconsin St., and not Aug. 25, as noted in our issue of July 5. G. W. Porth, Deputy Comptroller.

ANACONDA, MONT.—Local papers state that the Montana Central Ry., J. C. Patterson, Asst. Engr., Great Falls, Mont., will need three steel bridges for the new Great Falls Cut-off. One structure will be 800 ft. long and 150 ft. high, the second will be a few feet smaller, and the third will be 1,000 ft. long and 85 ft. high on masonry foundation.

ST. JOSEPH, MO.—Bids are asked until July 27 for making the necessary repairs to eight county bridges. Theo. Steinacker, County Surv.

DENISON, TEX.—R. L. McWillie, Cy. Engr., informs us that the style of bridge to be built over the Missouri, Kansas & Texas tracks has not been determined, but the cost is estimated at $13,000. Contractors will most likely be permitted to bid on their own plans.

SEATTLE, WASH.—The board of public works is reported to have let a contract to Sterrat & Goetz for constructing a pile bridge on Post St., at $4,610.

SANTA CRUZ, CAL.—Bids are wanted by the clerk of the county supervisors until July 23 for constructing a bridge across the San Lorenzo River at Ben Lomond, according to reports.

## BUILDINGS.

MILLINOCKET, ME.—Bids are asked by the Great Northern Paper Co. until July 26 for erecting a hotel building. Wm. R. Miller, Arch., Lewiston.

CAMBRIDGE, VT.—Bids are asked until July 20 by the board of school directors for erecting a new school house. F. E. Smith, Clk., Jeffersonville.

FALL RIVER, MASS.—Bids are asked until July 19 for erecting two brick school houses. J. H. Abbott, Chn. Com. on Instruction.

SOUTH FRAMINGHAM, MASS.—Bids are asked until July 30 for erecting a new fire department building. A. Howard Fiske, Chief Fire Dept.

FORT ADAMS, R. I.—Bids are asked until August 1 for the construction (including plumbing) of an addition to the light battery stable. H. P. Young, Q. M., 209 Thamas St., Newport, R. I.

NEWPORT, R. I.—Bids are asked until July 30 for erecting an addition to the U. S. Naval Hospital. W. K. Van Reypen, Surgeon Gen., U. S. N., Washington, D. C.

NEW HAVEN, CONN.—The school committee is said to be considering the question of erecting a high school building, to cost about $200,000, on Broadway.

BINGHAMTON, N. Y.—Fire recently destroyed the buildings occupied by J. M. Kilmer & Co., medical works; loss about $150,000. It is stated that contracts will be let at once for erecting a four-story brick fireproof building.

BROOKLYN, N. Y.—Bids are asked by the department of education, 59th St. and Park Ave., New York, until July 23, for erecting new Public School No. 134.

BUFFALO, N. Y.—The board of public works has accepted the plans of Charles D. Swan, 602 Guaranty Bldg., for a 3-story brick school house at Best St. and Fillmore Ave.

ELLIS ISLAND, N. Y. H.—Bids are asked until August 7 for heating and ventilating the hospital, hospital outbuilding, kitchen and restaurant, bathhouse and laundry buildings, for constructing (except heating and ventilating and electric wiring) a hospital outbuilding, for constructing (including heating and ventilating, but excepting electric light wiring) a surgeon's house, and for the erection and completion (except electric work, heating, water supply and other pipes) of a covered way and ferryhouse at the U. S. Immigrant Station, Ellis Island. James K. Taylor, Supt. Arch., Treasury Dept., Washington, D. C.

FAR ROCKAWAY, (L. I.), N. Y.—It is stated that the Ocean Country Club will erect a new club house on the Jas. O'Donohue farm, to cost about $50,000. B. F. Einstein, Pres.; Charles Scherer, Treas.; Silvan Biers, Secy.

LIBERTY, N. Y.—Reports state that the contract for erecting the new administration building for the Loomis Sanitarium, to cost about $70,000, has been let to Frank Cotter.

NEW YORK, N. Y.—The board of estimate and apportionment has authorized the issue of $150,000 in bonds for an addition to the Metropolitan Museum of Natural History, $20,000 for a new skate house at Van Cortlandt Park, $200,000 for new Botanical Gardens at Bronx Park, and $200,000 for repair shops for the fire department.——It is stated that the Hotel Savoy Co. will enlarge the Savoy so as to include the entire block on Fifth Ave., from 58th to 59th Sts. Frederick Wagner, Pres.

NEW YORK, N. Y.—Bids are asked by the fire department until July 25 for repairing the buildings occupied by H. & L. No. 6, at 77 Canal St., and H. & L. No. 22, at 766 Amsterdam Ave., Manhattan; also for repairs to the fireboat "David A. Boody," and for a new boiler for the repair shops at Canton and Bolivar Sts., Borough of Brooklyn. John J. Scannell, Fire Comr.

NEW YORK, N. Y.—We are informed that bids will be received about August 1 for erecting a 6-story brick apartment house, 42 and 50 × 90 ft., at 104 and 106 Essex St., to cost about $45,000, for Kidansky & Levy, 266 East Broadway; Horenburger & Straub, Archs., 122 Broadway.

NEW YORK, N. Y.—The following bids were received July 17 by the department of correction, 148 East 20th St., for erecting the administration building at the penitentiary, Blackwell's Island: Thomas Dwyer, 5 Beekman St., $124,220 (accepted); J. R. Sheehan, 334 East 60th St., for making alterations to the windows and other exterior portions of the penitentiary: J. H. Gourchandt, $45,400; J. Fay, 205 East 51st St., $23,400 (accepted); J. R. Sheehan, $25,800; Ryan & McFerran, 106 East 23d St., $24,500; for plumbing and gas fitting in the new penitentiary building: Donovan Bros., 161 East 79th St., $15,200 (accepted); W. A. Soles, 1691 Park Ave., $15,600; M. J. O'Brien, 835 Sixth Ave., $15,570; J. Mannerschmidt, $17,286; J. Fay, 205 East 51st St., $18,980; for installing new steam heating, passenger elevator and electric lighting in the penitentiary block, Blackwell's Island: Williams & Gerstle, 44th St. and First Ave., $40,500 (accepted); Jos. Curran Mfg. Co., 512 West 36th St., $42,000.

NEW YORK, N. Y.—Plans have been filed by Theodore M. Macy for eight 2-story brick dwellings, 20 × 52 ft., at Macy Place near Prospect Ave., to cost about $48,000. W. C. Dickerson, Arch., 534 Willis Ave.; by Joseph and Albert Plaut, 128 William St., for an 8-story brick warehouse, at 79 John St. and 120 William St., to cost about $150,000, Robt. Maynicke, Arch., 727 Broadway; by Henry Hertz, 99 Nassau St., for three 6-story brick flats, 28 × 84 ft., at 374 to 380 East 4th St., to cost about $76,500, Schneider & Herter, Archs., Bible House; by Hallahan & Ahearn, 78 West 131st St., for a 7-story brick flat, 50 × 91 ft., at 112th St., near Seventh Ave., to cost about $120,000, G. M. Robinson, Arch., 217 West 125th St.; by H. J. Grant, 54 Wall St., for alterations to a 10-story brick warehouse, at 81 to 97 Horatio St., to cost about $150,000, G. P. Chappell, Arch., 229 Broadway; by McCafferty & Buckley, 384 Park Ave., for three 4-story brick dwellings, 27 × 63 ft., at 82d St. near Madison Ave., to cost about $210,000, R. W. Buckley, Arch., 384 Park Ave.; by Columbia University, for alterations to the University Hall building, 176 × 281 ft., at Amsterdam Ave., Boulevard, 116th to 120th Sts., to cost about $900,000, McKim, Mead & White, Archs., 160 Fifth Ave.; by Walter Stabler, 674 Columbus Ave., for a 12-story brick hotel building, 50 × 88 ft., at 9 and 11 East 39th St., to cost about $300,000, C. T. Berg, Arch., 10 West 23d St.; by Morris Jacobson, 402 East 58th St., for three 6-story brick tenements, 25 × 87 ft., at 64th St., near Second Ave., to cost about $84,000, Geo. F. Pelham, Arch., 503 Fifth Ave.; by same owner, for two 7-story brick tenements, 25 × 87 ft., at 63d St., near Second Ave., to cost about $56,000, G. F. Pelham, Arch.

SCHENECTADY, N. Y.—Bids are asked by the state board of armory commissioners, Albany, until July 20 for repairs and alterations to the state armory building here.——It is stated that the council has appropriated $75,000 for erecting a new high school building.

PASSAIC, N. J.—The contract for erecting the new Brighton cotton mill here, to cost about $90,000, is said to have been let to John W. Ferguson, Paterson National Bank Bldg., Paterson.

BURNSIDE, PA.—Bids are asked until July 21 for erecting a school house on the road from Westover Borough to East Ridge. W. B. Stephenson, Secy. School Bd., near New Wilmington.

NEW BRIGHTON, PA.—The following bids are said to have been received July 9 by Jas. K. Taylor, Supt. Arch., Treasury Dept., Washington, D C., for erecting the U. S. post office building here: R. B. McDaniel & Sons., New Brighton, Pa., $64,680, 14 months, no check; L. L. Leach & Son, Marquette Bldg., Chicago, Ill., $56,295, 14 months; I. R. Churchyard, 648 Clifton St., Buffalo, N. Y., $56,739, 14 months; Campbell Building Co., Chicago, Ill., $52,669, 9 months.

PHILADELPHIA, PA.—Bids are asked until August 4 for repairs, etc., to No. 3 fireproof building at the Schulykill arsenal. Lieut. J. V. Furey, D. Q. M. G., U. S. A., 1428 Arch St.

PHILADELPHIA, PA.—The contract for installing eight electric elevators in the U. S. Mint building is said to have been let to the Stokes & Parriser Elevator Co., 702 Bullitt Bldg., at $44,980, to be completed in 140 working days.——John W. Fritzinger, Manayunk,, will erect a three-story hospital building, 49 × 112 ft., and a three-story laundry building, 48 × 27 ft., to cost about $70,000, at Ridge Ave. and Rector St., Roxborough, for St. Timothy's Hospital.——John R. Wiggins, 1220 Filbert St., will erect a 5-story apartment house, 41 × 91 ft. at 17th and Chestnut Sts., for J. W. Hallahan, to cost about $45,000. Frank R. Watson, Arch., 1208 Chestnut St.

PITTSBURG, PA.—The contract for erecting the new union station for the Pennsylvania R. R., to cost about $3,000,000, has been let to Roydhouse, Arly & Co., 24 South 7th St., Philadelphia, with Wm. Miller & Sons, Carnegie Bldg., Pittsburg, as associate contractors.——S. F. Heckert is said to have prepared plans for a parochial school at 21st and Smallman Sts., to cost about $40,000, for St. Stanislau's congregation.——Alden & Harlow, 314 Fourth Ave., are reported as preparing plans for a 10-story brick exchange building, 40 × 120 ft., at Fourth Ave. and Cherry Alley, for the Central District & Printing Telegraph Co., to cost about $200,000.

WILMINGTON, DEL.—Press reports state that the following bids were received July 5 for erecting the new Delaware hospital building: W. J. Brown, 413 Shipley St., $27,297; Philemma Chandler, 1000 Orange St., $30,000; Manufacturers' Construction Co., $32,970; A. S. Reed & Bro. Co., 812 Shipley St., $30,900; Alfred Downward, Fifth and French Sts., $30,907; John B. Johnson, $29,123; A. Eckman, $32,300; Calvin T. Swayne, 804 Orange St., $29,998.

WASHINGTON, D. C.—The following bids are said to have been received June 30 by the Department of the Interior for erecting a storehouse at the hospital for the insane, near here: Edward Landvoight, 430 11th St., $34,790, 150 working days; Humphreys & Gleason, $38,500, 180 days; Meads & Reynolds, $31,720.——The district commissioners have let the contract for erecting a brick school house at South Carolina Ave. and Second St., S. E., to J. M. Dunn, 1324 Fifth Ave., N. W., at $31,380.

NEWPORT NEWS, VA.—We are informed that the question of issuing $50,000 in bonds for erecting two new school houses is being discussed. Two new fire engines will probably be built this year. W. L. Cooke, Cy. Clk.

NORFOLK, VA.—The following bids were received July 7 by the bureau of yards and docks, Navy Department, Washington, D. C., for the construction of a storehouse for torpedoes at the Norfolk Navy Yard: (1) being for the building complete; (2) omitting steel shutters and gratings; (3) omitting elevators; (4) for substituting concrete roof for wooden roof; (5) omitting pile foundation and concrete footings: Penn Bridge Co., Beaver Falls, Pa., (1), $68,717; (2), deduct $650; (3), deduct $3,850; (4), add $3,470; (5), deduct $5,900. L. L. Leach & Son, Marquette Bldg., Chicago, Ill., (1), $69,700; (2), deduct $1,200; (3), deduct $1,700; (4), add $3,221; (5), deduct $6,500. Anderson-Murphy Co., Hoboken, N. J., (1), $76,558; (2), $75,711; (3), $72,058; (4), $81,749; (5), $68,964. L. P. Hazen & Co., 809 Broadway, Cincinnati, O., (1), $72,700; (2), deduct $1,277; (3), deduct $2,000; (4), add $5,318; (5), deduct $7,449. Grant Wilkins, Atlanta, Ga., (1), $68,000; (2), deduct $787; (3), deduct $1,560; (4), add $3,426; (5), deduct $5,665. R. A. Griefenhagen, Chicago, Ill., (1), $68,080; (2), $67,210; (3), $66,080; (4), $70,580; (5), $60,550.

COLUMBIA, S. C.—Bids are asked until August 1 for erecting the new state house. M. B. McSweeney, Chn. State House Com.

ATLANTA, GA.—It is stated that plans are now being prepared for a masonic temple at North Pryor St. and Auburn Ave., to cost about $50,000. N. F. Parkhurst, Secy.——Contracts are said to have been let for erecting the new 14-story stone Empire Building, 205 × 40 ft., at Broad and Walton Sts. Bruce & Morgan, Archs., Prudential Bldg.

BIRMINGHAM, ALA.—The council has passed a resolution authorizing a special committee to make arrangements for securing a loan for erecting a city jail, a city hall and three new school houses.

AGRICULTURAL COLLEGE, MISS.—Bids are asked until August 13 for erecting dormitory, to cost about $10,000, and a textile school building, to cost about $20,000, for the Mississippi Agricultural and Mechanical College. R. C. Kings, Secy.

JACKSON, TENN.—The city treasurer writes us that the legislature has authorized an issue of $25,000 in bonds for erecting a city hall and fire department building. No plans have yet been adopted.

NEWPORT, KY.—Bids are asked until July 30 for installing a heating and ventilating plant in the U. S. post office building. Jas. K. Taylor, Supv. Arch., Treasury Dept., Washington, D. C.

ATHENS, O.—Bids are asked until August 16 for erecting two buildings for the Ohio State Hospital. John N. Hayman, Pres. Bd. Trustees.

CARTHAGE, O.—Bids are asked until July 28 for installing a hot water heating system in the new building at the Longview Hospital. C. H. Smith, Secy. Bd. Dir.

CLEVELAND, O.—A. E. Sprackling, 204 Superior St., is said to have prepared plans for a 6-story brick office building, 55 × 83 ft., at Sheriff and Prospect Sts., for P. C. O'Brien & Co., to cost about $35,000.

EAST LIVERPOOL, O.—The following bids were received July 7 by J. N. Hawley, Cy. Clk., for erecting the new public library building: Harvey McHenry, East Liverpool, O., $37,815; J. A. Braugh & Sons, Cleveland, O., $40,900; J. C. Devine, Alliance, O., $38,620; Constable Bros. Co., Erie, Pa., $45,300.

MIFFLIN, O.—Bids are asked until July 26 for erecting a new school house. Charles Shull, Clk. Bldg. Com.

CHICAGO, ILL.—William F. Grower, 79 Dearborn St., writes us that F. B. Abbott, 225 Dearborn St., has prepared plans for an 8-story brick store and loft building, 150 × 100 ft., at 118 to 132 West Jackson Boulevard, to have steam heat, electric lights and four electric elevators.

ARKANSAS CITY, ARK.—Bids are asked until July 21 for erecting a new county jail building. J. W. Davis, Comr.

COLORADO SPRINGS, COLO.—The following bids have been received by the county commissioners for the brick work on the new court house: Brewer & Schrader, brick, Brewer & Schrader, $50,029; Findlay & Reasoner, $63,119; Omaha brick, Brewer & Schrader, $52,584. Findlay & Reasoner bid $67,006 for Pueblo brick, and $60,474 with Forbes & Ware brick; L. S. Atkinson bid $[illegible],949, and Gillis Bros. $59,887.

SPOKANE, WASH.—The board of education has received the following bids for erecting the new high school building: John H. Clemmer, for work and materials complete, $33,800; D. B. Fotheringham, Van Vollenberg Bldg., $30,000, with cut stone sills and trimmings $31,500; M. C. Conley $29,885, buff brick, terra cotta and stone trimmings, red brick $29,650; Fred Phair, 1723 Jefferson St., $29,470 red brick, $31,073 bluff brick.

WALLA WALLA, WASH.—Bids are asked until August 6 for erecting an addition to the State Penitentiary building. Hon. J. B. Catron, Warden.

MARE ISLAND, CAL.—Bids are asked until July 30 for erecting a new boiler house, with equipment at the U. S. naval hospital. W. K. Van Reypen, Surgeon Gen. U. S. N., Washington, D. C.

MODESTO, CAL.—Bids are asked until August 11 for erecting the new hall of records building. A. I. Dengler, Clk.

SAN FRANCISCO, CAL.—We are informed that the following contracts have been let for erecting a 2-story brick addition, 92 × 90 ft., to the Commercial Bldg., to cost about $50,000: General contract to John G. Cook & Co.; steam heating to Geo. H. Tay Co., 49 First St.; elevators to Cahill & Hall Elevator Co.

PRESCOTT, ARIZ.—Fire destroyed nearly the entire business section of this city July 14; loss about $1,000,000.

FORT WILLIAM, ONT.—F. E. Trautman, Secy. Bd. Trustees, will receive plans for a new hospital building, to cost about $10,000.

WINDSOR, ONT.—Bids are asked until July 25 for erecting a new drill hall here. Jos. R. Roy, Acting Secy., Dept. Pub. Wks., Ottawa.

## WATER-WORKS.

PITTSFIELD, MASS.—E. A. Ellsworth, of Holyoke, Mass., it is reported, has been engaged to prepare plans and specifications for a new dam at the Ashley reservoir.

WEST SPRINGFIELD, MASS.—The residents of this place are anxious to be furnished with a water supply from Holyoke. At present West Springfield is said to pay double what Holyoke pays, and will also soon have to issue bonds for extending the mains.

PASCOAG, R. I.—There is considerable opposition to the granting of an exclusive franchise to the Pascoag Light & Water Co., the opponents being in favor of municipal plants. The company is in hopes of securing the franchise at once so that the improvements can be completed by January. Edward M. Shedd, Engr., Providence.

PROVIDENCE, R. I.—The report of the special committee on filtration was considered by the aldermen July 9, and a resolution appropriating $176,000 for a mechanical plant was indefinitely postponed.

NEW LONDON, CONN.—The board of water commissioners has decided that users of large amounts of water must put in water meters.

ADAMS, N. Y.—The works, property, etc., belonging to the Adams Water-Works Co. has passed into the hands of the village trustees. I. W. Payne, Supt.

BABYLON (L. I.), N. Y.—The village trustees are considering the question whether to make a new contract with the Sumpwams Water-Works Co. or to advocate the construction of municipal works.

BLUE MOUNTAIN LAKE, N. Y.—Bids were received July 12 by the commissioners of the Blue Mountain Lake water district for furnishing and laying 19,279 ft. of 4 to 1-in. water pipe, and also vitrified clay pipe for a sewer. There will be two or more small reservoirs.

BREWSTER, N. Y.—E. Wegmann, Katonah, N. Y., is reported as making surveys for works for this place.

DUNKIRK, N. Y.—The following bids for furnishing the materials and for constructing the conduit from the waterworks to the Lake Erie crib were received July 5: Hingston & Woods, Buffalo, N. Y., conduit 3¼ ft. in diameter with steel pipe, 14 ft. deep, $83,600; 18 ft. deep, $89,900; 5¼ ft. diameter, 14 ft. deep, $90,000; 18 ft. deep, $96,300; all 3-ft. cast-iron pipe, 14 ft. deep, $85,500; 18 ft. deep, $91,750; all 3-ft. cast-iron pipe with steel pipe, 14 ft. deep, $95,500; 18 ft. deep, $88,750; Alexander Dossner, Toledo, $53,440; the Buffalo Dredging Co., $102,000 and $96,000.

FULTON, N. Y.—The village trustees will take steps at once to extend the water mains so as to secure the water supply at the Woodworth Springs. It is said that the work will cost about $15,000. An election to vote on the matter will soon be held. Walter Bradley, Supt.

FREDONIA, N. Y.—The village trustees have been asked to extend the mains in several streets.

LANCASTER, N. Y.—Wm. M. Small, Lancaster, has been engaged to prepare plans for new works to cost about $40,000. Julius Wenz, Village Pres.

LOCKPORT, N. Y.—The Lockport & Newfane Power & Water Co. has submitted a proposition to furnish this city with water from Lake Ontario.

MOSCOW, N. Y.—The question of building works is reported as again being considered by the village trustees. A fire in the town recently destroyed a number of buildings, some of the owners of which will not rebuild unless works are constructed.

NEW YORK, N. Y.—The board of estimate and apportionment has authorized the spending of about $313,000 for pumping stations and light pressure water station at High Bridge and Jerome Park Reservoir, $250,000 for additional water mains in Brooklyn, $75,000 for pumping apparatus at Millburn water station, and $10,000 for works at Tottenville, S. I.

PORTVILLE, N. Y.—The question of building works is being considered. Anthony Hotten, E. M. Bedford and J. H. Fairchilds are the trustees and water commissioners.

MILBURN, N. J.—The Milburn township committee has made a new ten-year contract with the Mountain Water Co., beginning July 1. C. P. Bassett, Pres. and Engr., Summit, N. J.; C. O. Lyon, Chn. Com.

ORANGE, N. J.—Bids are asked until Aug. 6 for furnishing and erecting pumping engines in Milburn township at Campbells Pond. F. T. Crane, Cy. Engr.; J. J. Cuddy, Chn. Water Com.

CALIFORNIA, PA.—Permission has been granted to the California Water Co. to put in works. J. H. Millen, Pittsburg, Pa., is probably interested; J. D. Owen, Clk.

ARCHBALD, PA.—The question of the municipal ownership of the works is reported as being considered.

BEAVER FALLS, PA.—A. Lutz & Son, Beaver Falls, have been awarded the contract for a reservoir, 120 x 180 x 15 ft., for the South Side Land Co., opposite East Liverpool, O. A. Funkhouser, of New Brighton, Pa., has the contract for the excavating.

CARBONDALE, PA.—A. B. Dunning, Scranton, Pa., has submitted a report, estimating the proposed works to cost about $175,000. A tunnel 1,250 ft. long and 34 ft. below the surface will be necessary. Population, 15,000. L. A. Roberts, Chn. Com.

PHILADELPHIA, PA.—Bids are asked by the director of public works until July 20 for a sand and gravel filtration testing plant. There are ten items to be bid for, each specifying the character of the gravel and sand, together with the area and thickness of the vein from which the same is to be furnished. Under the specifications the gravel may be of broken trap or gneiss rock, subject to the approval of the Chief Engineer. Each delivery is to be inspected, and a mechanical analysis made to determine whether it conforms with the requirements. The gravel and sand are not to contain more than 2% of weight of lime and magnesia taken together, and calculated as carbinates. They shall also contain not more than 1% of iron in the form of oxide.——The councils have voted against the ordinance to lay new fire protection mains in the business streets at a cost of about $850,000. Councilman Seeds, Chn. Finance Com.

LAUREL, MD.—C. E. Allen has completed plans and has asked for bids for erecting gravity works, furnishing the materials, etc., to cost about $35,000, according to reports.

WASHINGTON, D. C.—Bids are asked until Aug. 16 for furnishing sluice-gates, valves, water pipe, etc., as stated in our advertising columns. Lt. Col. A. M. Miller, U. S. Engr. Washington Aqueduct.

WASHINGTON, D. C.—Bids are asked until July 24 for furnishing the materials and for sinking one or more 6 or 8-in. wells 400 ft. deep at the Government Hospital for the Insane. Thos. Ryan, Acting Secy., Dept. Interior.

WASHINGTON, D. C.—The district commissioners have awarded the contract for furnishing two direct connected 20,000,000-gallon pumps to the Edward P. Allis Co., of Milwaukee, at $148,000.

SISTERSVILLE, W. VA.—John J. Rea, Sistersville, has been awarded the contract at $7,250 for constructing a reservoir. Skidmore & Davis, Parkersburg, W. Va., submitted the only other bid at $6,950. Address City Engineer Sammons.

SALISBURY, N. C.—The owners of the works have about agreed upon a price that they will accept from the city for the works. Should the city not buy the works, however, steps will be taken for the construction of a new plant, the issue of bonds having already been voted for by the citizens. The contract for the sewerage system was let in February and the work is about completed. H. J. Overman, Cy. Clk.; S. F. Lord, Mayor.

CHARLESTON, S. C.—Press reports state that the council on July 17 authorized the committee to make contracts for a water supply for Charleston, which will cost $1,600,000. A lighting plant will be included.

ATLANTA, GA.—The water board on July 7 was desirous of engaging an expert to report on the condition of the works, and to suggest improvements. Park Woodward, Supt., is quoted as stating that a new stand-pipe system is wanted, as well as new distributing pipes. Geo. W. Harrison, Pres. Comrs.

EVERGREEN, ALA.—Bids are asked until July 25 for the purchase of $25,000 of 6% 30-year bonds for the proposed electric plant and water-works. H. L. Brown, Mayor.

ALEXANDRIA, LA.—Bids are asked until Aug. 1 (postponed from July 29) for furnishing an automatic engine, boilers, feed-water heater, air lift, etc., as stated in our advertising columns. J. C. Allen, Supt.; F. M. Welch, Mayor.

OCALA, FLA.—The question of purchasing the works of the Ocala Water Co. for about $60,000 is being considered by the council.

BROOKHAVEN, MISS.—The city has let a contract for improvements to the works, to cost about $5,000, to McDaniel & Porter, of McComb City, Miss. W. C. Porter, Engr., Columbia Bldg., Louisville, Ky., and McComb City. ——W. C. Porter has been engaged to prepare plans for a fire protection system for the Pearl River Lumber Co., Brookhaven. The contract has been let to McDaniel & Porter.

DYER, TENN.—The election, to be held July 7, to vote on the question of issuing $75,000 in bonds for works, has been postponed, according to reports.

LEWISBURG, TENN.—Reports state that the committee is about ready to submit its report for the proposed works, to cost about $70,000.

MOUNT STERLING, KY.—A deal has been closed whereby the Montgomery Water Co. has purchased the ice, electric light and gas plants from J. M. Pickrell and will at once put in water-works.

ALLIANCE, O.—The council has passed an ordinance providing for improvements to the works, and for constructing an electric plant in connection therewith. Address W. H. Morgan and A. B. Love, and O. W. Pfouts, Cy. Engr.; J. H. McConnell, Cy. Clk.

BARNESVILLE, O.—The question of building works is being considered.

CINCINNATI, O.—The contract for building the tunnel and shaft for supplying water to the Western pumping station, the itemized bids of which were published last week, has been let to W. J. Gawne & Co., foot of Kirkland Ave., Cleveland, O., at $308,165.——The following bids for the construction, delivery and erection of one deep well pump and motor, for the intake tunnel and shaft at the eastern pumping station, were received July 6: Bacon Automatic Lift Co., New York, $15,800; the Hendrick Mfg. Co., Carbondale, Pa., $11,986, if 10-in. brass tubing is used, as the specifications require (accepted), and $10,473 if steel oil well casing is used.

COSHOCTON, O.—The following bids were received by the water trustees July 8 for furnishing a 2,000,000-gallon compound duplex pumping engine: Snider-Hughes Co., Cleveland, $3,600 (accepted); Snow Steam Pump Works, Buffalo, $4,769; Stilwell-Bierce & Smith-Vaile Co., Dayton, $5,770; Deane Steam Pump Co., Holyoke, Mass., $4,150; Barr Pumping Engine Co., Philadelphia, $7,120; d'Auria Pumping Engine Co., Philadelphia, $10,000.

CUYAHOGA FALLS, O.—The water-works trustees will at once issue $5,000 in bonds for preliminary work on the proposed works.

TOLEDO, O.—Bids are asked until noon July 21 for furnishing on board cars at Toledo from 50 to 500 tons of 4, 6, 8 and 12-in. cast-iron water pipe, delivery to be made as called for during the season; 10 tons of pure soft pig lead, for calking, etc.; 50 to 100 of ¾-in. water meters, fire hydrants and 4, 6, 8 and 12-in. hub gate valves. T. R. Cook, Supt.

KOKOMO, IND.—The council has offered to purchase the works owned by the American Water-Works Co. for a certain amount, which, if not agreed upon, the council will at once take steps to build a municipal plant.

MONROEVILLE, IND.—C. L. Olds, of Fort Wayne, Ind., it is stated, has submitted estimates for works and an electric plant for this place, to cost about $10,000.

MASS CITY, MICH.—Windmills will be used with the standpipe for the proposed works, to be built by the Moss City Water Co., the water supply to be received from wells 300 ft. deep. Population, 1,500. P. W. Scott, Pres. and Mgr.

CHICAGO, ILL.—The Western Water Co. has been incorporated in New Jersey, with a capital of $100,000, by R. A. Mullvillhill, E. C. Cronwall and F. Wm. Craft, of Chicago, to build works in towns in Illinois.

ELGIN, ILL.—The water commissioners have asked the council for $10,000 for new mains.

HARVEY, ILL.—L. Wilson, 53 Dearborn St., Chicago, has been awarded the contract for sinking an artesian well 1,600 ft. deep for the water-works.

NORTH CHICAGO, ILL.—The proposed works will consist of a tower and reservoir of 100,000 gallons capacity, 3,000 ft. of 12-in. and 3,500 ft. of 6-in. pipe, hydrants, valves, etc. The kind of pump has not yet been decided upon. Estimated cost, $25,000. E. B. Ewing, La Grange, Ill.; C. W. Vedder, Village Pres.

GOWRIE, IA.—Bids are asked until July 24 for furnishing the materials and for constructing works, according to reports. Tremont Turner, Engr., Des Moines, Ia.; E. W. Sorber, Mayor.

GREENE, IA.—An election will be held July 27 to vote on the question of issuing bonds for new works. Population, 1,500. Address Elmer Moss.

IOWA CITY, IA.—The Iowa City Water Co. has decided to increase the size of its water pipes, which carry the water from the river. Jay Chatham, Supt.

MUSCATINE, IA.—This place voted July 10 to issue bonds to purchase the works of the Muscatine Water Co. for about $100,000.

PIERSON, IA.—Bids are asked until August 7 for constructing works. There will be about 3,000 ft. of pipe. J. C. Pearson, Mayor.

STAPLES, MINN.—Bids for constructing the proposed works are wanted. Population, 1,700. H. T. Waldron, Recdr.

STEPHEN, MINN.—Bids are asked until 1 p. m., July 20, for furnishing the materials and for constructing a pumping station and installing an electric plant. G. A. Ralph, Engr., Crookston, Minn.; J. A. Larson, Village Recdr.

CHERRYVALE, KAN.—The water committee has recommended the constructing of a reservoir, new mains, etc., at a cost of $5,000.

BEATRICE, NEB.—Bids are wanted for furnishing about 1,000,000 gallons of water daily for a term of 10 years. The water is to be secured from the Big Blue River, or from wells. H. W. L. Jackson, Mayor.

BLOOMFIELD, NEB.—The city clerk has been directed to secure the names and addresses of engineers who will prepare plans and estimates for works. It is proposed to issue bonds for the same. Address Village Trustees Paulsen, Pres., and Needham.

SIDNEY, NEB.—Propositions for constructing works are wanted at once. The water supply can be secured from wells. Population, 1,000. J. J. McIntosh, Chn. Bd.

SISSETON, S. DAK.—The council is reported as ready to receive bids for constructing works.

HILLSBORO, N. DAK.—C. H. Porriett, Fargo, N. Dak., has been awarded the contract, at $28,244, for furnishing the materials and for constructing works and an electric plant. The following are the other bidders: Fairbanks, Morse & Co., St. Paul, $31,597; W. I. Gray & Co., Minneapolis, $29,304; J. B. Mooney & Co., Grand Forks, N. Dak., water-works only, $23,326; Fort Wayne Electric Works, Fort Wayne, Ind., electric plant only, $4,120; Des Moines Bridge & Iron Works, Des Moines, Ia., pipe system and steel water tower, $16,517; B. O. Paulsness, Grand Forks, pipe system, $13,171. J. R. Carley, Cy. Audr.

LARAMIE, WYO.—The council is considering the question of engaging an engineer to submit plans and estimates for new works, to cost about $100,000. Address Councilmen Brandis and Crumrine.

ST. LOUIS, MO.—Bids are asked until July 27 for reconstructing high service engine foundations Nos. 1 and 2, the work to include 460 yds. of earth excavation, 60 yds. concrete and 1,035 yds. of concrete masonry removing. R. E. McMath, Pres. Bd. Pub. Improvements.

BEEVILLE, TEX.—The Beeville Water Co. and the Beeville Light Co. have been incorporated, the first with a capital of $20,000, and the latter with $10,000, by P. H. Swearingen and S. J. Brooks, both of San Antonio, Tex.

GUTHRIE, OKLA. TER.—The council has employed Wynkoop Kiersted, Kansas City, Mo., to make surveys and to prepare plans for increasing the water supply and for a sewerage system. T. C. Frazier, Cy. Engr.

PAWNEE, OKLA. TER.—This place has voted to issue bonds for works, and further action towards the construction will be taken at once. Address M. H. Bretz.

CENTRAL, COLO.—Nothing has yet been done towards building the proposed works. B. E. Seymour, Mayor.

BAKER CITY, ORE.—Fife & Conlan, Spokane, Wash., are reported to have been awarded the contract, at $87,791, for constructing gravity works. The other bids were as follows: Smith & Miller, $101,752; Joe Paquet, $111,115; Clemmons & Sweeney, $96,090; D. McAulay, $89,497; Smith & Howard, $100,394; Costello & Broad, $94,086; Jacobson & Bade, $95,076; Jere C. White, $92,724. The bonds have been sold to N. W. Harris & Co., of Chicago. J. G. Kelly, Engr., Baker City.

ARNPRIOR, ONT.—Bids are asked until August 2 for the purchase of $75,000 of 4% 30-year bonds, as stated in our advertising columns. The proceeds of these bonds are to be used for constructing works and a sewerage system, as noted in last week's issue. Work on the improvements will be begun this season. W. M. Howe, Mayor.

## SEWERAGE.

SOUTH PORTLAND, ME.—The street committee has been authorized to ask for bids for constructing brick sewers on High, Stanford and several other streets.

GARDNER, MASS.—The following bids have been received by the sewer commissioners for constructing about three miles of sewers in the Parker St. district: C. E. Trumbull & Co., Boston, $15,472 (accepted); F. L. Allen, 8 Forest St., Worcester, $17,168; H. A. Hanscom & Co., Boston, $18,464; Merick & Wentworth, 161 Ferry St., Malden, $24,780.

WAKEFIELD, MASS.—Reports state that a special town meeting will be held July 23 to settle the question of constructing sewers.

WILLIMANTIC, CONN.—The board of aldermen is said to be considering the question of constructing a sewer in Pleasant St.

BROOKLYN, N. Y.—Bids are asked by the department of sewers, 21 Park Row, Manhattan, until July 25 for constructing a 12-in. sewer on Bushwick Ave.

KINGSTON, N. Y.—City Engineer Bell is said to have estimated the cost of constructing a system, to be built of pipe, at about $85,000.

ROCHESTER, N. Y.—The board of public works is said to have ordered sewers built on Asbury and St. Stanislaus Sts., to cost about $3,650, and cement sidewalks on a number of streets, to cost about $7,875.

SYRACUSE, N. Y.—The council has passed a resolution of intention to construct a 15-in. pipe sewer across the property of G. B. Warner and through Belden Ave.

WATERTOWN, N. Y.—The contract for constructing trunk sewers in the second, third and fourth wards, to cost about $71,000, has been let to Haley, Ward & Co., Flower Bldg., according to reports.

CONNELLSVILLE, PA.—At a special election the people voted to issue $75,000 in bonds for constructing a system.

DARBY, PA.—The contract for constructing a number of sewers in this city has been let to Phillips & Co., at $3,031.

HARRISBURG, PA.—The council has appropriated $2,000 for building sewers in Ella Ave. and 17th St.——The question of turning Paxton Creek into a sewer is being considered, according to reports.

MT. PLEASANT, PA.—The council has directed City Engineer Niel to complete the entire system.

NEW FLORENCE, PA.—It is stated that a special election will soon be held here to vote on the question of issuing $16,000 in bonds for constructing sewers and water-works.

PHILADELPHIA, PA.—Bids are asked, according to reports, until July 20, by the Director of Public Works, for constructing sewers, an ice plant, and for filter gravel and sand and platinum ware for the experimental filtration plant; also for pipe and cables for electric conduits across Gray's Ferry bridge, to cost in all about $160,000.

PITTSBURG, PA.—Geo. W. Wilson, Dir. Dept. Pub. Wks., has rejected all bids for a system of sewers in the Fifth Ave. district, near Soho Creek; those submitted were claimed to be about $6,000 too high.

ALEXANDRIA, LA.—Bids are asked until August 1 for constructing about nine miles of sewers, etc., as stated in our advertising columns. Ira W. Sylvester, Cy. Engr.

UNION CITY, TENN.—Hall & George, Engrs., Starkville, Miss., write us that plans and specifications for the system here are not yet ready, and that work will probably not start before next winter.

AKRON, O.—Bids are asked until July 21 for constructing a main trunk sewer. Chas. H. Isbell, Cy. Clk.

CLEVELAND, O.—The council has passed an ordinance providing for the construction of a sewer in Barber Ave. Howard H. Burgess, Cy. Clk.

LANCASTER, O.—We are informed that contracts will be let the latter part of July for constructing about 3,000 ft. of 15 and 18-in. sewers, average cut 8 ft. John N. Wolfe, Cy. Engr.

NAPOLEON, O.—The following bids were received July 7 by M. V. Fisher, Cy. Clk., for constructing about 12,000 ft. of pipe sewers: Meyers, Hennessy & Co., Dayton, O., $10,929; O'Sulavan & Shaney, Toledo, O., $11,058; Henry Gantz, Columbus, O., $11,402; Belwind Bro., Cleveland, O., $11,580. The contract will probably be awarded to Meyers, Hennessy & Co.

TOLEDO, O.—Bids are asked until July 30 for furnishing the material and constructing a pipe sewer in the alley southwest of Troy St. John E. Connell, Cy. Clk.

DETROIT, MICH.—Thos. P. Sheehan, 92 Spruce St., is said to have submitted the lowest bid, at about $59,000, for constructing the Dubois St. sewer. The board of public works may readvertise the work, owing to a difficulty over securities. J. W. Miller, Pres. Bd. Pub. Wks.

GRAND RAPIDS, MICH.—The council has passed ordinances providing for the construction of sewers in several streets.

HOLLAND, MICH.—Wm. O. Van Eyck, Cy. Clk., writes us that a special election will be held July 30 to vote on the question of issuing $10,000 in bonds for constructing trunk sewers for a general sewerage system.

YORK, NEB.—We are informed that the city and county will build 5,063 ft. of 12-in. and 1,005 ft. of 10-in. pipe sewers, average cut about 10 ft., to cost about $8,000. No date has yet been set for receiving bids. Adna Dobson, Engr., Lincoln; A. R. Codding, Cy. Engr.

WATERTOWN, S. DAK.—City Engineer Carpenter has prepared plans and specifications for improving the system. Work will be started at once.

RAWLINS, WYO.—Bids are asked until July 30 for constructing 8,208 ft. of 10-in. pipe sewer, 10,355 ft. of 8-in., and 1,110 ft. of 6-in., as stated in our advertising columns. J. H. Clause, Pres. Bd.; Jas. A. Hansen, Cy. Clk.

GUTHRIE, OKLA. TER.—We are informed that the city has engaged Wynkoop Kiersted, 58 Water-Works Bldg., Kansas City, Mo., to make surveys and prepare plans for sewers and increase water supply. He is now engaged in making surveys. T. C. Frazier, Cy. Engr.

VICTOR, COLO.—We are informed that the Victor Sewer Co. will construct about 3,000 ft. of 8 and 10-in. pipe sewers, average cut 6½ ft., to be done by day work. E. J. Condon, Mgr.

SEATTLE, WASH.—The contract for constructing sewers in several streets has been let to McCauley & Delaney, at $42,091, according to reports.

PASADENA, CAL.—The council has passed a resolution of intention to construct sewers in a number of streets. J. A. Buchanan, Supt. Streets.

## GARBAGE DISPOSAL—STREET CLEANING

NEWPORT NEWS, VA.—The legislature has authorized the issuance of $10,000 in bonds for a garbage disposal plant. No action towards the issuing of the bonds has yet been taken. W. L. Cooke, Cy. Clk.

NEWPORT, KY.—Press reports state that the aldermen had agreed to concur in the action of the council in awarding the contract for a plant to M. R. Harris & Son.

DAYTON, O.—Bids are asked until noon, July 19 for sprinkling certain streets. F. M. Turner, Cy. Engr.

MANSFIELD, O.—The Dixon Crematory Co., Toledo, O., is reported to have been awarded the contract for a garbage disposal plant, in connection with the sewerage system. Snow & Barbour, Engrs., Columbus, O., and Boston, Mass.

MINNEAPOLIS, MINN.—Local papers state that work on the proposed garbage crematory to be built by the Decairre Crematory Co., of Montreal, Que. The plant will have a capacity for 100 tons. The building will be 70 × 35 ft.

## STREETS AND ROADS.

BOSTON, MASS.—The Mayor has asked for an appropriation of $738,200 for paving and street improvements. ——The board of aldermen has been petitioned to pave Tremont and Boylston Sts. with brick.

BLOOMFIELD, CONN.—Bids are asked until July 23 by the board of selectmen for constructing three sections of macadam roads in this town.

BRIDGEPORT, CONN.—It is stated that the street committee has decided to macadamize Connecticut Ave. M. C. Cowles, Street Comr.

THOMPSON, CONN.—Bids are asked by the board of selectmen until July 21 for constructing a gravel road in this town.

WEST STAFFORD, CONN.—At a special town meeting it was voted to appropriate $3,000 for constructing a macadam road in this town.

CANTON, N. Y.—The people of this town recently voted against the proposed issue of $4,000 for road improvements.

CORNING, N. Y.—Bids are asked until July 21 for constructing about 5,400 yds. of brick pavement on a 6-in. concrete foundation with 4-in. curb. W. W. Adams, Chn. Com. on Pavements.

ELMIRA, N. Y.—The county supervisors are said to have appropriated $10,000 for building macadam roads; this entitles them to $5,000 from the state.

NEW YORK, N. Y.—Bids are asked by the department of highways, 21 Park Row, until July 26 for paving a number of streets in Manhattan, Bronx and Brooklyn Boroughs, and also for furnishing a quantity of sand in Brooklyn. James P. Keating, Comr. Highways.

WATERFORD, N. Y.—The street paving committee has let the contract for paving Broad St. with brick to Mooney & Lillis, Troy, according to reports.

WATERTOWN, N. Y.—The following bids have been received for macadamizing the roads in the new city park: Brennan, Hodge & O'Brien, city, $23,586; Haley, Ward & Co., Flower Bldg., $24,581; A. F. Nims, Philadelphia, N. Y., $25,211; Jas. Driscol & Son, Brookline, Mass., $18,061; F. Kelley, Brookline, Mass., $23,735.

WHITESBORO, N. Y.—The contract for macadamizing the Yorkville road has been let to Edw. and Jas. E. Martin, Utica, at $9,500, according to reports.

HOBOKEN, N. J.—The street and water commissioners have let the contract for improving Union St. to Thomas McCabe, at $4,961.

KEARNY, N. J.—The freeholders have authorized the street committee to improve Passaic Ave.

ORANGE, N. J.—Press reports state that the council is considering the question of purchasing a steam road roller.

ALLEGHENY, PA.—The committee on public works has recommended that the following contracts be awarded: Grading of Clayton Ave., Northside Coal & Sand Co., $6,200; grading of Michigan Ave., James P. Wall, $595; resurfacing of old walks and the construction of new walks in the public parks, Wadsworth Stone & Paving Co., $6,275; grading, paving and curbing of Wilson Ave. with Ligonier block, James McAfee & Co., $13,155.

HARRISBURG, PA.—An ordinance has been introduced into the council providing for an appropriation of $100,000 for paving and street improvements.

PHILADELPHIA, PA.—The director of public works has apportioned $900,000 to the bureau of highways for paving, grading and improving a number of streets.

SEWICKLEY, PA.—Bids are asked until July 31 for paving Logan, Little and Peebles Sts. with brick, about 5,125 sq. yds. R. C. Wheeler, Borough Engr.

WASHINGTON, D. C.—Bids are asked until July 21 by the district commissioners for about 100,000 cu. yds. of grading on Cathedral Ave., as stated in our advertising columns.——The district commissioners will also soon receive bids for about 80,000 cu. yds. of grading in 11th St. extended.

MANCHESTER, VA.—A special committee has been appointed to look into the question of extending Laburnum Ave. M. F. Burton, County Surv.

PETERSBURG, VA.—We are informed that contracts have been awarded for laying sheet asphalt pavement, to cost about $49,000. Thos. R. Dunn, Cy. Engr.; G. B. Gill, Cy. Auditor.

JACKSONVILLE, FLA.—Bids are asked until August 9 for constructing about 5,858 sq. yds. of brick pavement, and 3,161 lin. ft. of stone curb on portions of five streets. Phillip Prioleau, Cy. Engr.

BIRMINGHAM, ALA.—Press reports state that the question of paving Fifth Ave. with brick is being discussed.

MONTGOMERY, ALA.—The council has passed an ordinance providing for the paving of Madison Ave. E. B. Joseph, Mayor.

KNOXVILLE, TENN.—The board of public works will receive bids at once for improving Scott St.

AKRON, O.—Bids are asked until July 21 for paving Rockwell St. with brick. Chas. H. Isbell, Cy. Clk.

CANTON, O.—Bids are asked until August 4 for improving and paving a number of streets. Louis N. Lay, Cy. Clk.

CLEVELAND, O.—The council has passed ordinances providing for the paving, grading and improving of a number of streets. J. A. Green, Vice-Pres. Council; H. H. Burgess, Cy. Clk.

COSHOCTON, O.—Bids are asked, according to reports, until July 20, by the city clerk, for paving Chestnut St. with asphalt or brick.

DELTA, O.—Press reports state that contracts will be let in the near future for about $40,000 worth of paving.

FINDLAY, O.—Bids are asked until August 16 for paving Locust St., requiring 3,910 sq. yds. paving, 2,607 ft. of curbing, 1,169 ft. of 8-in. sewers and 6 catchbasins. John W. S. Riegle, Cy. Engr.

IRONTON, O.—Bids are asked until July 30 for completing portions of several turnpikes. H. R. Brown, Auditor.

KENTON, O.—The contract for paving the main street in this town with brick has been let to Scott & Hoffstetter, Marion, at about $18,000.

MANSFIELD, O.—Bids are asked until July 20 for paving and improving several streets. F. M. Remy, Cy. Clk.

MIDDLETOWN, O.—Bids are asked until August 6 for paving South Main, North Main and Third Sts. with brick, requiring 32,608 sq. yds. of brick pavement, 1,200 sq. yds. of asphalt block pavement, 4,891 ft. of new curbing and 2,484 lin. ft. of old curbing reset. Frank Stevens, Cy. Clk.

TOLEDO, O.—The street committee has decided to pave Summit St., 34 ft. wide.

VAN WERT, O.—Bids are asked by the road commissioners until August 4 for constructing about 2¾ miles of turnpike in York Township.

WELLSVILLE, O.—It is proposed to spend about $20,000 here in street improvements and sewers, according to reports.

YOUNGSTOWN, O.—Bids are asked until July 28 for improving portions of two streets. C. E. Cross, Cy. Clk.

EARL PARK, IND.—At a special election recently held the people voted to issue $32,000 in bonds for constructing about 18 miles of gravel roads in Richland Township, according to reports.

VALPARAISO, IND.—The following bids were received July 7 by M. J. Stinchfield, County Auditor, for constructing roads in Boone Township: Brownell Improvement Co., Chicago, Ill., $41,240 (accepted); M. A. Talbott & Co., Logansport, Ind., $42,900; Hains & McBride, Frankfort, Ind., $43,633; John McGillicuddy, Valparaiso, Ind., $43,738; James E. Bryant, Hebron, Ind., $44,123.

DETROIT, MICH.—The following bids have been received by the board of public works for paving Fort St. with cedar blocks; J. W. Millen, Pres.: H. Merdian Co., $5,320; T. J. Kennedy, $5,410; Geo. E. Currie, $5,350; Wm. Lappin, $5,438; Arch. Grant, $5,287 (accepted); J. A. Mercier, $5,306; E. K. Roberts & Co., $4,968.——The council has passed resolutions to pave the following streets: Van Dyke, to cost about $11,952; Field, to cost about $18,437; Garfield, to cost about $2,823, and Toledo, to cost about $19,856.

GRAND RAPIDS, MICH.—The council has passed ordinances providing for the paving of Newberry St. with brick, and the graveling of Sweet St.

CHICAGO, ILL.—The board of local improvements is said to have reported favorably to the West Park board on the proposed expenditure of $141,134 for the improvement of the Southwest Boulevard. Charles B. Pavlicek, Chn.

MORRIS, ILL.—The city clerk has been directed to advertise for bids for macadamizing Liberty St., according to reports.

OTTAWA, ILL.—The council has appropriated $5,140 for improving several streets.

PONTIAC, ILL.—Bids are asked until July 19 for constructing about 9,698 sq. yds. of pavement on Oakland Ave. and West Lawrence St. W. J. Fisher, Cy. Engr.; E. E. Hymers, Cy. Clk.

MARINETTE, WIS.—Bids are asked until July 28 for constructing about 3,800 sq. yds. of cedar block pavement. A. L. Hillis, Cy. Engr.

TOPEKA, KAN.—The city clerk is said to have been directed to advertise for bids for paving portions of seven streets.

MARYVILLE, MO.—The contract for about eight blocks of paving in the business section of this city has been let to A. E. Rutledge & Co., Rockford, Ill., at $24,500.

TACOMA, WASH.—Reports state that this county will spend about $15,000 in road improvements this season.

DENVER, COLO.—The board of public works has been petitioned to build about 67 blocks of macadam pavement, according to reports.

WINNIPEG, MAN.—Bids are asked until July 25 for furnishing from 250 to 350 tons of asphalt. C. J. Brown, Cy. Clk.

OTTAWA, ONT.—It is stated that bids will be received at once for paving Somerset St. to cost about $29,000.

## MANUFACTURING PLANTS.

PLATTSBURG, N. Y.—Contracts have been awarded by the Logier Motor Co. for building a concrete dam and powerhouse on the Saranac River, near this place, where the company is locating its shops and moving its business. The plant will employ about 1,000 men. A. C. Rice, Engr., Worcester, Mass.

JERSEY CITY, N. J.—The Warwick Machine & Valve Co. has been organized with $100,000 capital stock, and will locate its plant in either this city or Newport News, Va., according to reports. The company will manufacture ice machinery and valves covered by its patents.

PHILADELPHIA, PA.—It is stated that the American Cotton Gunning Co., now located at Atlanta, Ga., proposes to transfer its plant to this city.

CUMBERLAND, MD.—The mill owned by the Cumberland Hydraulic Cement Co. was burned July 11; reported loss about $75,000.

ROANOKE, VA.—Ed. L. Stone, Treas., Roanoke Cotton Mill Co., writes us that the equipment for the company's plant, already built, will soon be contracted for. From 3,000 to 5,000 spindles will be needed, together with a 150-HP. engine and a 200-HP. boiler. The equipment will cost about $7,500.

ANDERSON, S. C.—Fred. G. Brown, Pres., informs us that plans and specifications are wanted at once for a plant to manufacture acid, phosphate and fertilizer, to have a capacity of 15 tons of acid per day.

CULLMAN, ALA.—A proposition has been submitted to the council by eastern capitalists to build a 5,000-spindle cotton mill, to be ready for operation by Oct. 1. A company will be organized capitalized at $100,000, providing the scheme is received favorably.

ENSLEY, ALA.—The Birmingham Cement Co.'s plant at this place, which was destroyed by fire July 10, causing a loss reported at about $100,000, will be rebuilt as soon as new machinery can be secured. W. H. Baldwin, Pres., 32 Nassau St., New York.

HUNTSVILLE, ALA.—Local papers state that the contract for building the Alabama Cotton Oil Co.'s new $25,000-cotton gin and round-bale plant has been let to A. M. Booth.

CHATTANOOGA, TENN.—Geo. Knowles, Philadelphia, Pa., is said to be in this city with a view of establishing a cotton plant. A company, capitalized at $30,000, will be organized.

LAWRENCEBURG, TENN.—Oscar A. Ossata informs us that the company which proposes to build a cannery has not yet been organized, but the following machinery will be needed: one 20-HP. boiler, one 10-HP. engine, and all necessary machinery for a modern canning and preserving factory, also can-making tools.

YOUNGSTOWN, O.—The National Steel Co. is reported to have awarded contracts for the construction of a continuous mill at the Ohio works, in this city, which will double the capacity of the plant and cost about $500,000.

NEVADA, MO.—A. Frazier writes us that he expects to erect a flour mill this fall, if a desirable location can be found, but no definite plans have been made.

MONTICELLO, ARK.—W. A. Brown, Pres. Board of Trade, desires correspondence with parties interested in cotton mills for the establishment of a plant at this place, towards which the citizens of Drew county will subscribe between $50,000 and $75,000.

HOUSTON, TEX.—It is stated that the proposed rice mill that is being promoted by Dr. J. F. Morris and F. A. Combes, Crowley, La., will probably be located in this city. It is stated that preliminary work will be started in about 30 days. The plant will have a capacity of 1,500 bushels a day and will cost about $100,000.

SEATTLE, WASH.—It is reported that the J. H. Day Lumber Co., which recently purchased the mill property of Parker Bros., at Big Lake, will make many improvements to the plant, and will build a new dry kiln and a planing mill.

## MISCELLANEOUS CONTRACTS.

CONSTRUCTING DRAIN.—New Castle, Ind.—Bids are asked until July 20 for the drainage of Blue River. Henry Fadley, Drainage Comr.

FIRE WAGON.—Hamilton, O.—Bids are asked, according to reports, until July 24 for furnishing a wagon for the fire chief. M. O. Burns, Cy. Clk.

PARK WORK.—Fort Edward, N. Y.—A special election will be held July 23 to vote on the question of issuing $7,000 in bonds for building a public park.

BREAKWATER.—Ottawa, Ont.—Bids are asked until July 27 for constructing a breakwater at Wilson's Beach, N. B. Jos. R. Roy, Acting Secy., Dept. Pub. Wks.

DREDGING.—Portsmouth, N. H.—Bids are asked until August 16 for dredging in the Merrimac River, Mass., as stated in our advertising columns. Maj. W. L. Fitch, U. S. Engr.

DREDGING.—Chicago, Ill.—Bids are asked until September 12 for dredging the main Chicago River, and also the South Branch. Wm. Boldenneck, Pres. Sanitary District; Jas. F. Haas, Clk.

DRAFTING MATERIALS.—Washington, D. C.—Bids are asked until July 25 for furnishing a quantity of drafting materials for the supervising architect's office. Jas. K. Taylor, Supt. Arch., Treasury Dept.

LOCK WORK.—Albany, N. Y.—The contract for completing the dam and erecting a lock at the entrance to Saranac Lake has been let by State Supt. Public Works, Partridge, to Jos. H. Connors, of Fulton.

ERECTING LIGHT HOUSE.—Norwalk Harbor, Conn.—Bids are asked until August 7 for erecting Green's Ledge light house, Norwalk Harbor, as stated in our advertising columns. Lieut.-Col. D. P. Heap, U. S. Engr., Tompkinsville, N. Y.

COALING PLANT.—Frenchmen's Bay, Me.—Bids are asked until August 14 for furnishing a coaling plant at the U. S. Naval Coal Station at Frenchmen's Bay. R. B. Bradford, Ch. Bureau Equipment, Navy Department, Washington, D. C.

PIERS.—Hoboken, N. J.—It is stated that the North German Lloyd Steamship Co. will at once let contracts for removing the piles and other debris of the burned piers and as soon as this work is completed will erect steel and iron piers.

SUPPLIES.—Tompkinsville, N. Y.—Bids are asked until August 9 for furnishing a quantity of miscellaneous articles for the light-house establishment for the year ending June 30, 1901, as stated in our advertising columns. Lieut.-Col. D. P. Heap, U. S. Engr.

BONDS.—Arnprior, Ont.—Bids are asked until August 2 for the purchase of $75,000 of 4% 30-year bonds for constructing water-works and a sewerage system, as stated in our advertising columns, and as noted in last week's issue. Work on the improvements will be begun this season. W. M. Howe, Mayor.

PIER SUPERSTRUCTURE.—Buffalo, N. Y.—The followings bids are said to have been received June 10 by Maj. T. W. Symons, U. S. Engr., for constructing a concrete superstructure on the south pier: the Buffalo Dredging Co., D. S. Morgan Bldg., $4,857; the Donnelly Constructing Co., 896 Ellicott Square Bldg., $5,813.

CONTROLLING CHANNEL FLOW.—Chicago, Ill.—We are informed that the committee on engineering has referred the plans received June 30 for controlling the flow through the Chicago Sanitary and Ship Canal, to the Chief Engineer, who has as yet not reported on them.

## FOREIGN CONTRACTS AND EXPORT NEWS.

CLOTHING FACTORY.—Mexico, Mex.—It is stated that Henry G. Fradley, of Chicago, Ill., proposes to build a clothing factory here at a cost of about $200,000.

CABLE.—London, Eng.—Reports state that bids will be received at once by Jos. Chamberlain, Secy. of State for the Colonies, London, for laying the Pacific cable.

RAILWAY.—Portugal.—The Administrative Council of State Railways, Lisbon, has been ordered to proceed with the construction of a railroad from Pias to Moura.

RAILWAY.—Luzon, P. I.—The Manila "Freedom" states that the United States government will probably soon begin the construction of a railway from Legaspi to Apari, through the valleys of Albay.

ELECTRIC RAILWAY.—Minas, Brazil.—Reports state that Olimpio de Assis, Ch. Engr., of Ciudad de Minas, is reported as proposing the construction of an electric railway, and that catalogues, estimates, etc., of machinery, electrical apparatus, rails, etc., are desired.

ELEVATOR.—Buenos Aires, Argentina.—Wm. Goodwin, of 268 Calle Reconquista, this city, who recently received a 40-year concession for the erection of a grain elevator on dock No. 2, to cost $700,000 gold, will soon commence work. Material is to be allowed to enter the country free of import duty.

PNEUMATIC TUBES.—London, Eng.—Reports state that the post office authorities are preparing to lay pneumatic tubes in London, for the delivery of letters. There are already 34 miles of pneumatic tubes working here, but these are only 6 ins. in diameter and are found to be inadequate. The new tubes will be from 12 to 16 ins. in diameter.

WATER-WORKS, SEWERAGE SYSTEM, ETC.—Saltillo, Mex.—Reports state that the construction of the proposed water-works, sewerage system and the paving of certain streets has been begun; estimated cost, about $500,000. A new market house is also being built. The contract for a steel frame building for the Bank of Coahuila was let in March to Skirving & Boyd, of San Antonio, Tex., at $194,050.

ELECTRIC RAILWAY, ETC.—Seoul, Corea.—Harry R. Bostwick, Civil Engr., of San Francisco, Cal., builder of the Seoul Electric Ry., 5¼ miles long, has made a contract with the King to build an imperial highway 15 miles

long, and to extend the electric line on it. The contract also calls for the removal of the tombs, etc., in the royal cemetery, 15 miles inland. The entire work, it is stated, will cost about $1,000,000.

RAILWAY.—Mexico.—Reports state that a company has been formed at Tucson, Ariz., to build a railway through the New River country along the northern border of Lower California, and to Tia Juana, and also a line in Arizona from Yuma, Tucson and Phoenix. Surveys have been made and work, it is said, will be begun this year. The Mexican government has already granted concessions for the lines in that country to A. B. Smith, of Tucson.

ELECTRIC RAILWAY.—Valencia, Spain.—H. L. Washington, U. S. Consul, reports that the Thomson-Houston Co. has secured a 40-year lease of the horse car lines of this city, and will at once begin to convert the lines into electric traction. The contract for the electric machinery and plant has been let to the General Electric Co., Schenectady, N. Y., and Edison Bldg., Broad St., New York, while that for the cars has been let to Spanish manufacturers.

MACHINE SHOPS, FOUNDRY, ETC.—Tokio, Japan.—Reports state that J. Watanabe, a government commissioner to the United States, will let contracts for a steel frame foundry, machine, forging and boiler shops, etc., for the navy department. It is hoped the steel frame construction will be adopted for business blocks in Tokio. Mr. Watanabe was to visit the Carnegie Steel Co.'s works, at Pittsburg, last week, and it is possible that mail address there may reach him.

BRIDGE.—Sydney, N. S. W.—Bids are asked until Sept. 1 for furnishing plans, bids, etc., for the proposed bridge over the Sydney Harbor, as advertised in our issue of March 15. (Postponement from Aug. 1.) As stated in our issue of May 31 plans and bids may be deposited at the office of the Agent-General for New South Wales, 9 Victoria St., London, S. W. The plans of the harbor and conditions may be seen at the office of Engineering News, 220 Broadway, New York.

ELECTRIC RAILWAY.—Lahore, India.—Alex. Atkinson, Civil Engr., Cooper Road, Lahore, India, writes us under date of June 7 that the matter of building an electric road to Kashmir is in abeyance. The plans are prepared and an engineer will probably go to England soon to secure advice from experts regarding the electric installation. In the meanwhile, owing to the famine, some 40 miles of the cutting of the track has been started to give employment to poor people.

STEAM TRAMWAY.—Buenos Aires, Argentina.—Meurice & Co., of this city have received a concession for the construction and working of a steam tramway from the Riachuelo branch of the Western Ry. to the new mataderos (slaughter houses). The line will be of the same gage (5 ft. 6 ins.) as the railway, so that cars from the latter can pass over it.——The Minister of Public Works has approved of the contract with E. Pieggio, of this city, for constructing and working a railway from Port Piramides to Salinas Grandes, in the Valdez peninsula.

BRIDLE ROADS, ETC.—Lima, Peru.—The Société Anonyme Industriale Financière Amérique Sud, of Paris, has a concession for the construction of a bridle road to have a width of 2 meters, with necessary culverts and bridges, from Marcapata to navigable points on the rivers Mambari and Pilopata. This will make a highway not less than 250 kilometers in length. A concession of 50,000 hectares of land, valued at 5 sols ($2.18) per hectare, is made to this company, which is authorized to enforce a schedule of tolls and to build railway and telegraph lines. A contract has been made for the construction of a wagon road from the village of Bahua-chica to a point on the Marañón River below its junction with the Manseriche River.

ELECTRIC LIGHT PLANT, ETC.—Perth, Western Australia.—Ernest E. Salter, Asst. Supt. Pub. Wks., Perth, writes us that the municipal council has put forward a bill asking for authority to undertake electric lighting. The plant is estimated to cost about $250,000. Information on the question of municipal ownership and the cost is now being secured. A. Forrest, Mayor; H. H. Stinton, T. A. Shafto and T. P. Draper are members of the council. ——Regarding the tramways, we are informed that the Perth Electric Tramways Co. has under construction certain sections of the line, and it was understood on May 10 that work on other sections would be begun at once. It is probable that all contracts are let; those for the equipment, cars, machinery, etc., being awarded to I. & G. White & Co., New York, for the General Electric Co.

ELECTRIC RAILWAY.—Santos, Brazil.—The Sao Paulo Tramway, Light & Power Co. has taken over the concession granted some time ago to Drs. Santos da Silva and Joao da Silva Martins, for the introduction of electric traction. It is stated that the company will commence work as soon as it is possible to obtain the materials. This company recently built and opened to traffic an electric system in this city. The capital of the company is American and Canadian, and the machinery, track, etc., were purchased in the United States. This will also no doubt be the case as regards the supplies for the new line. F. S. Pearson, formerly Ch. Engr. Metropolitan St. Ry. Co., of New York, and who has an office at 621 Broadway, N. Y., is chief engineer for this company, and Robt. C. Brown, now en route from Rio de Janeiro to New York, is superintendent.

GUAYAQUIL & QUITO RY.—Ecuador.—Last week we stated that the Jas. P. McDonald Co., 35 Nassau St., New York, who has the contract for a 300-mile section of G. & Q. Ry., will let sub-contracts at once. There is about three years' work in the deal. The following prices are offered for sub-contracts: Clearing and grubbing, $50 per acre; earth, 10 cts. per cu. yd.; loose rock, 30 to 35 cts. per cu. yd.; solid rock, 60 to 70 cts. per cu. yd.; excavation in water, $2 per cu. yd.; overhaul, 1¼ cts. per yd. after 500 ft.; tunnel excavation, $3 per cu. yd.; packing, $1.50 per cu. yd.; second-class masonry, $6 to $9 per cu. yd.; concrete, $5 to $8 per cu. yd.; dry wall, $3.50 per cu. yd.; rip-rap, $1.50 per cu. yd.; paving, $1.50 per cu. yd. Profiles may be seen at the contractor's office. The work will be paid for in American gold; estimates monthly. Sir J. Sivewright, Lourensford, Somerset West, Cape Colony, So. A., is interested in the Ecuador Land Association, Ltd., of Edinburgh, Scotland, which will own the road.

HARBOR WORKS, ETC.—Genoa, Italy.—The Parliamentary government commission has recommeneded that a board composed of a government representative, the Genoa corporation and the Genoa and Milan savings banks, be directed to improve the Genoa harbor, at a cost of about $10,000,000. Besides this improvement there are others already in course of construction. One—a customs and bonded warehouse—is being erected by a company to which England has supplied most of the capital. The first block of buildings will be completed during the present year at a cost of $1,125,000. The area covered by the buildings is 2¼ acres. They are erected on 9,585 piles driven 43 ft. The floor space is 347,769 sq. ft., storage space 3,907,427 cu. ft., while the buildings have a frontage of 600 yds. The contractor and subcontractor are Italians. Italy supplies Portland cement from Casale Monferrato. Bricks and tiles come from Alessandria, cast-iron columns from a foundry at Florence, cast-iron water pipes from Piombino, seven electric lifts from Milan, rolled steel (1,000 tons) from Germany, electric light and power and nine elecrtic cranes from Berlin, and the pile drivers were sent from Hamburg. There is another company, working on German capital, building similar warehouses which will be shortly completed.

ICE-MAKING PLANTS.—Press reports state that the department of public works for New South Wales, Sydney, will erect a cold storage plant at Darling Harbor, to cost about $80,000. M. Tornquist, of Ernesto Tornquist & Co., exporters, Piedad 531, Buenos Ayres, Argentina, is interested in a new company to build a cold storage plant. The market committee of the council of Bradford, Eng., R. M. Dunwell, Supt., and J. H. Cox, Cy. Surv., are wanting bids for furnishing and erecting a new cold storage plant. The Cardiff Ice & Cold Storage Co., Cardiff, Wales, proposes to make improvements to its plants. The London & Provincial Pure Ice Co., Ltd., 58 Lincoln's Inn Field, London, E. C., has been organized with a capital of $725,000, to build plants. The superintendent of the public works department, Melbourne, Victoria, has submitted a report for a plant to cost about $250,000. A recent U. S. consul report on the manufacture of ice in South and Central America states that there are good opportunities for the development of ice manufacturing plants in some of these countries. Ice is but little used, because the people in some countries do not understand its use, and think it impure, in others the cost is too high, etc. The consuls think, however, that it might prove profitable to establish plants in some of the bigger towns of Costa Rica, Guatemala, Honduras (address Dr. Spencer Franklin, of Utila), San Salvador, Colombia, New Amsterdam, British Guiana and Venezuela. A concession was some time ago granted to a party to furnish ice at Cienaga and Santa Marta, Colombia, but so far nothing regarding the plant has been done.

ELECTRIC RAILWAYS.—Barcelona, Spain.—U. S. Consul-General Lay, of Barcelona, reports as follows regarding electric railway work in Barcelona: Below are the names of the directors and chief contractors of a tramway line about to be built between Barcelona and Horta, four miles. The name of the branch line will be the Barcelona & San Andres Ry.; work was to be commenced in June: Builders, Societe Anonyme d'Entreprise Generale de Travaux at Liege, Belgium; Pres., Mr. Laloux; Dir. Gen., Mr. Thouet. The chief contractor is F. H. Bagge, 14, Ronda Universidad, Barcelona, who imports his trucks, tubing for posts, and motors from the United States. The wire is to be suppled by Hulheim, of Rhine, Germany; rails, from Belgium; car motors, by General Electric Co., Paris; gas engines, Crossley, of Manchester; cars, from Saragossa, Spain; accumulators, Tudor; dynamos, Industrial Electrico, Barelona. It is difficult to get any reliable information about projected roads, especially about those for which the equipment is being bought, as the directors, chief engineers, and other officials of new tramways, are foreigners and have their headquarters in other cities. It is suggested, therefore, that American manufacturers write the Societe Anonyme d'Entreprise Generale de Travaux, Liege, Belgium, in good time before the contracts are let at Brussels. The society is a very large one and has built many miles of tramways in Europe and is constructing lines in Russia at the present time. In connection with the sale of electrical supplies and equipment in Berceiona, it is advised that manufacturers of motors not used in connection with tramways and other small electrical appliances that their agents here must keep a certain stock of such articles on hand, as the Consul-General is informed by several electrical importers of Barcelona that frequently English or German goods are sold because the purchaser cannot wait for better American-made articles, which take so long to come from the United States.

RAILWAYS.—Mexico.—Chas. W. Kindrick, U. S. Consul, Ciudad Zuarez, Mex., reports as follows regarding projected railway work in Mexico: John P. Ramsey, Gen. Mgr. Rio Grande, Sierra Madre & Pacific R. R., P. O. Box 708, El Paso, Texas, recently made a horseback survey of a projected line to run from Corrallitos to Frontera, 160 miles. Mr. Ramsey found that, so far as a bird's-eye survey can be relied upon, the line is feasible. The Rio Grande, Sierra Madre & Pacific R. R., which runs southwest in Chihuahua for 160 miles, was completed in 1897. It was expected this road would be extended to the Gulf of California, with a terminus at or near Topolobampo. It was found, however, after the road had been constructed as far as Casas Grandes, the present terminus, that the cost of building the line across the Sierra Madre Mountains would be so great as to render the project entirely impracticable. As a result of operating no farther than Casas Grandes, the Rio Grande, Sierra Madre, and Pacific Railway has not paid interest on the investment, and only for little more than a year has it paid working expenses. The enterprise was fathered principally by the stockholders of the Corrallitos Co., a New York corporation possessing a cattle ranch of 1,000,000 acres and several lead and silver mines. The road placed the Corrallitos mines and ranch in touch with the markets, and the company expected to haul enough freight to pay interest on the railway stock and bonds, in addition to the cattle and ores carried from the Corrallitos property. This was expected, whether or not the road was ultimately extended to the Gulf of California. Realizing that the railroad as now operated will not pay, the company is considering an extension westward in one of two directions, possibly both. The Copper Queen Co., of Arizona, has just completed a copper-smelting plant at Nacosari, State of Sonora, about 100 miles south of Bisbee, Ariz. Modern furnaces have been established at a cost of about $1,000,000. It is claimed the company has $35,000,000 worth of copper ore at Nacosari blocked out. A railroad has been surveyed from Bisbee to Nacosari, and it is said the company will commence building at once. At present, coke and coal for the Nacosari smelter is hauled from Bisbee to Nacosari in specially made freight wagons. Three of these wagons are coupled together and hold nearly two carloads of freight. They are drawn by 18 horses or mules. Coal costs this company more than $8 per ton laid down at Bisbee. It offers to supply or guarantee six or more cars of freight per day between Frontera and Ciudad Juarez (El Paso, Tex.). Coal laid down in El Paso is $4.50 to $5 per ton. It was figured that if the projected extension of the Rio Grande, Sierra Madre & Pacific R. R. would not cost more than $2,500,000, it would prove a paying investment from the first. The first 75 or 80 miles of the extension could be laid at less than $10,000 the mile. For that distance there would be few curves, practically no grading, and no cuts. It would cross a series of level cattle ranges. The line would then strike the mountains of the Continental Divide. Mr. Ramsey, after several days' searching, found that two tunnels and a long bridge with a considerable number of cuts and fills—altogether about 35 miles of rough work—would place the road again in a level country, with no difficult work for the remainder of the distance. The line would run near some of the richest silver mines in Mexico. It would pass close by the Roy and the Cinco de Mayo mines, which now ship ore 125 miles on the backs of burros, and make it pay. There are many valuable deposits of low-grade ores which this road would develop. Besides touching a good mining and cattle country, it would pass through several valleys well watered and adapted to agriculture. Another project the Rio Grande, Sierra Madre & Pacific R. R. Co. is considering is a line about 80 miles in length, to run from Casas Grandes into the Sierra Madre Mountains and touch the pine-timber forests. Several million of acres of timber lands are found here and there is a great demand for cheap lumber. The next two or three years promise to bring about considerable development of the resources of this consular district. Along with railroad construction comes invariably the opening of mines and the improvement of cattle ranches. The bases of prosperity in this section of Mexico are cattle raising and mining. Railroads are necessary to afford an outlet to market for the products of either.

## CONTRACT PRICES.

SUSPENDING WATER PIPE.—St. Paul, Minn.—The following bids were received July 9, 1900, by the water commissioners for a structure to suspend water pipe under the Wabash St. bridge:

| Quantities. | Gillette-Herzog Mfg. Co., Minneapolis. | Vulcan Boiler Works, St. Paul. | J. G. Wagner Co., Chicago. |
|---|---|---|---|
| Steel .... ....73,500 lbs..... | $0.08 | $0.07⅛ | $0.053 |
| Wlk & hnd rail 1,200 lin. ft.. | .50 | .81 | .80 |
| Doors and screens tunnel.... | 15.00 | 51.25 | 100.00 |
| Total ..... ..... .. | $6,495 | $6,391 | $4.955 |

ASPHALT PAVING.—Lincoln, Neb.—The Barber Asphalt Paving Co., New York, submitted the only bid, as follows, July 7, 1900, for repaving South 11th St. with asphalt: Asphalt, 1½-in. binder, 2-in. surface, 2½-in. concrete, 5-year guaranty, $1.85 per sq. yd.; same 10-year guaranty, $2.05. Sand, per cu. yd., 75 cts.; concrete, $5; broken stone, $1.50; resetting curbing, 15 cts. per lin. ft.

PAVING.—Marinette, Wis.—The following bids were received July 11, 1900, for brick and macadam paving; A. L. Hillis, Cy. Engr.:

Bids Received at Marinette, Wis., July 11, 1900, for Brick and Macadam Paving.

| Bidders. | Curbing, 8,180 lin. ft. | Excavation with filling, 6,600 cu.yds. | Brick pavemnt on 6-in. macadam, 19,511 sq.yds. | Excavation for macadam, 2,000 cu.yds. | Filling, excess of excavation, 400 cu.yds. | Macadam pavement, 3,114 sq.yds. |
|---|---|---|---|---|---|---|
| Welch, Patterson & Striffler, Springfield, O. (accepted).... | $0.50 | $0.25 | $1.75 | $0.25 | $0.25 | $0.75 |
| L. Anderson and J. Sanderson, Marinette..... | .59 | .33 | 1.88 | .27 | .35 | .50 |
| Hochworthy Construction Co., Appleton, Wis..... | .54 | .30 | 1.84¼ | .40 | .40 | .97½ |
| W. E. Covert, Appleton, Wis. ..... | .72 | ... | 1.91 | .30 | .30 | .87 |
| Smith, Moss & Brown, Chicago, Ill..... | .54 | .31½ | 1.82½ | ... | ... | ... |
| John O. Jones, Racine, Wis. ..... | .56 | .36 | 1.85 | .36 | .26 | .64 |
| Reichert Construction Co., Racine, Wis. ..... | .56½ | .35 | 1.86½ | .35 | .40 | .70 |

CONCRETE SUPERSTRUCTURE.—Buffalo, N. Y.—The following bids were received July 10, 1900, by Maj. T. W. Symons, U. S. Engr., for a concrete superstructure on the south pier; (1) Buffalo Dredging Co, (2) James B. Donnelly, Buffalo:

| | | 1. | 2. |
|---|---|---|---|
| Removing old banquette.... | 2,000 cu. yds. | $1.75 | $1.00 |
| Repairing old cribs and jnts | 400 lin. ft.. | 1.50 | 5.00 |
| New hemlock timber used.. | 3,000 ft. B.M. | 60.00 | 50.00 |
| Removing pile protection... | 1,400 lin. ft.. | 2.50 | 1.20 |
| Drawing old piles. ..... | 150 each... | 1.50 | 1.80 |
| New Norway pine piles.... | 300 " ... | 8.25 | 9.00 |
| New pile shoes in work.... | 50 " ... | 2.00 | 3.00 |
| Steel caps ..... ..... | 70,000 lbs..... | .05⅞ | .04 |
| Railroad iron stringers..... | 20,000 " .... | .03 | .03 |
| White oak waling ..... | 1,400 lin. ft.. | .20 | .60 |
| Waling clamps & supports. | 10,000 lbs..... | .05 | .06 |
| Sheet piles in place..... | 2,000 each... | 1.90 | 2.00 |
| Concrete blocks ..... | 3,000 cu. yds. | 7.40 | 11.00 |
| Concrete in place ..... | 450 " " | 6.85 | 8.25 |
| Granolithic concrete, placed | 200 " " | 11.00 | 13.50 |
| W't iron or steel clamps.. | 10,000 lbs..... | .07 | .05 |
| Dredging, scow measurem't. | 2,600 cu. yds. | .20 | .35 |
| Total ..... ..... | | $48,575 | $59,813 |

LAYING WATER PIPE.—Boston Mass.—The following bids were received by the Metropolitan Water Board July 10, 1900, for laying water pipe across Chelsea Creek; (1) Hiram W. Phillips, Boston and Quincy; (2) MacRitchie & Nichol, Chicago (accepted); (3) Geo. W. Townsend, Boston:

| | | 1. | 2. | 3. |
|---|---|---|---|---|
| Laying 24-in. pipe*... | 800 lin. ft.. | $3.25 | $8.00 | $2.50 |
| Laying 24-in. pipe†... | 625 " " | 7.50 | 8.00 | 26.94 |
| Rebuilding fender grds. | 600 " " | 6.85 | 3.00 | 6.00 |
| Pile dolphins ..... | 8 each... | 120.00 | 85.00 | 175.00 |
| Removing piles..... | 23 " ... | 2.50 | 5.00 | 6.00 |
| Cutting off piles..... | 66 " ... | 2.25 | 1.50 | .20 |
| Spruce for foundations | 3½ M. ft. | 26.00 | 50.00 | 20.00 |
| Earth excav., blw grde | 5 cu. yds. | 1.00 | 2.00 | 4.00 |
| Total ..... ..... | | $12,660 | $14,279 | $24,079 |

*With ordinary joints. †With flexible joints.

REMOVING DIKES.—Ohio River.—Maj. Wm. H. Bixby, U. S. Engr., Cincinnati, received the following bids July 12, 1900, for removing White's and Trap dikes, and dredging near dam No 3, Ohio River; (1) is for removing 950 lin ft. at White's Dike; (2) for 2,100 lin. ft. at Trap Dike; (3) for 200,000 cu. yds. of dredging:

| | 1. | 2. | 3. |
|---|---|---|---|
| W. C. Jutte, Pittsburg, Pa..... | $12.00 | $12.00 | $0.48 |
| Edward J. Hingston, Buffalo, N. Y... | 3.90 | 3.90 | .34 |
| Evansville (Ind.) Contract Co..... | 7.00 | 7.00 | .48 |
| I. V. Hoag, Jr., Allegheny City, Pa... | 25.00 | 25.00 | .75 |

PAVING BRICKS.—New Haven, Conn.—The following bids were received July 10, 1900, for furnishing about 2,000,000 vitrified paving brick, etc.; C. W. Kelly, Cy. Engr.: New York Brick & Paving Co., Syracuse, N. Y., $12.50 per 1,000 or 92½ cts. per sq. yd.; Eastern Paving Brick Co., Catskill, N. Y., $14.50 or 84 cts.; Higley, Kepplinger & Co., Canton, O., $28.50 or $1.20; paving Grand Ave., C. W. Blakeslee & Son, New Haven, contractor to furnish brick, $2.29 per sq. yd.; city to furnish brick, $1.37 per sq. yd.

ASPHALT PAVING.—Pittsburg, Pa.—Geo. W. Wilson, Dir. Dept. Pub. Wks., has awarded 17 repaving contracts each to the Pennsylvania Asphalt Co. and the Pittsburg Asphalt Paving Co., at price ranging from $2.53 to $2.55 a sq. yd. Other paving contracts awarded July 5, 1900, included those for repaving several streets with block stone, on which Mr Bigelow, the former director, tried to introduce granite block. Mayor Diehl vetoed the contract and Ligonier stone has been substituted. Booth & Flinn secured two of the contracts—for the repaving of Cherry Alley at $2.78 a sq. yd., and 27th St. at $1.89. Evan Jones has the contract for paving 21st St. at $1.94, and Keeling & Ridge the contract to repave 9th St. at $2.25. Booth & Flinn were also awarded contracts for grading, paving and curbing Climax, South 20th and Atwell Sts.

SEWERS.—Vineland, N. J.—The following bids were received July 12 for furnishing the materials and for laying about ten miles of pipe sewers, as advertised in Engineering News; the soil is sand and gravel; borings in wells show little signs of water, no rock; time of completion, 3½ months; extra allowance, at stated price, if quicksilver is encountered; lumber, when ordered, left in trenches or foundations and paid for at prices fixed by contract; Portland cement used throughout work; forfeit for non-completion and bonus for completion prior to time set for completion of $25 per day; Alex. Potter, Engr., 150 Nassau St., New York; Dr. J. S. Halsey, Chn. Com.:

BIDS RECEIVED AT VINELAND, N. J., JULY 12, 1900, FOR FURNISHING AND LAYING TEN MILES OF PIPE SEWERS.

| Quantities. | Jehiel Vaughn, Stamford, N. Y. | Fell & Costa, Orange, N. J. | Guild & Co., Chattanooga, Tenn. | N. J. Construction & S'p'ly Co., Garfield, N. J. | V. M. Rosser, Kingston, Pa. | J. H. Hurley, Trenton, N. J. | Harrison Constructing Co., Newark, N. J. | Lanzillo, Tifla & Frisco, East Orange, N. J. | B. M. Sweeten & Sons, Camden, N. J. | S. H. Engler Co., Boston, Mass. | David Peoples, Philadelphia, Pa. | Palisade Construction Co., Jersey City, N. J. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Furnishing and laying: | | | | | | | | | | | | |
| 8-in. pipe in trench 0 to 6 ft. deep.. 3,700 lin. ft.. | $0.30 | $0.30 | $0.33 | $0.33 | $0.30 | $0.26 | $0.40 | $0.39 | $0.39 | $0.36 | $0.47 | $0.49 |
| 8-in. " " 6 " 8 " " ..16,570 " " | .35 | .33 | .40 | .35 | .33 | .30 | .45 | .45 | .46 | .45 | .49 | .58 |
| 8-in. " " 8 " 10 " " ..10,710 " " | .37 | .40 | .45 | .42 | .48 | .40 | .53 | .50 | .54 | .60 | .69 | .67 |
| 8-in. " " 10 " 12 " " .. 2,650 " " | .50 | .50 | .56 | .59 | .74 | .52 | .55 | .65 | .69 | .75 | .79 | .89 |
| 8-in. " " 12 " 14 " " .. 2,100 " " | .55 | .60 | .61 | .74 | .91 | .65 | .70 | .79 | .86 | .90 | .89 | 1.08 |
| 8-in. " " 14 " 16 " " .. 200 " " | .70 | .90 | .85 | .83 | 1.02 | .80 | 1.05 | 1.00 | 1.11 | 1.25 | 1.00 | 1.49 |
| 10-in. " " 0 " 6 " " .. 1,130 " " | .35 | .36 | .40 | .40 | .37 | .42 | .40 | .47 | .48 | .45 | .57 | .54 |
| 10-in. " " 6 " 8 " " .. 200 " " | .40 | .40 | .47 | .42 | .41 | .65 | .52 | .50 | .55 | .55 | .59 | .65 |
| 10-in. " " 8 " 10 " " .. 550 " " | .45 | .30 | .51 | .50 | .55 | .70 | .55 | .59 | .63 | .70 | .79 | .78 |
| 10-in. " " 10 " 12 " " .. 400 " " | .50 | .62 | .62 | .67 | .80 | .80 | .65 | .73 | .78 | .80 | .80 | .98 |
| 10-in. " " 12 " 14 " " .. 400 " " | .60 | 1.00 | .68 | .82 | .98 | .88 | .80 | .79 | .97 | 1.00 | .95 | 1.08 |
| 12-in. " " 0 " 6 " " .. 725 " " | .50 | .43 | .49 | .49 | .44 | .62 | .45 | .55 | .59 | .55 | .60 | .63 |
| 12-in. " " 6 " 8 " " .. 600 " " | .50 | .50 | .56 | .52 | .48 | .68 | .50 | .62 | .69 | .65 | .75 | .82 |
| 12-in. " " 8 " 10 " " .. 1,125 " " | .50 | .60 | .60 | .60 | .62 | .35 | .60 | .69 | .78 | .80 | .85 | .91 |
| 12-in. " " 10 " 12 " " .. 300 " " | .70 | .70 | .70 | .82 | .87 | .99 | .75 | .73 | .99 | .95 | .95 | 1.15 |
| 12-in. " " 12 " 14 " " .. 750 " " | .70 | .90 | .80 | .89 | 1.05 | 1.10 | 1.00 | .97 | 1.07 | 1.15 | 1.10 | 1.29 |
| 15-in. " " 0 " 6 " " .. 910 " " | .60 | .65 | .60 | .64 | .56 | .90 | .58 | .70 | .73 | .75 | .70 | .73 |
| 15-in. " " 6 " 8 " " .. 575 " " | .70 | .70 | .70 | .68 | .60 | 1.10 | .62 | .75 | .82 | .85 | .85 | .89 |
| 15-in. " " 8 " 10 " " .. 1,685 " " | .80 | .80 | .75 | .76 | .75 | 1.25 | .72 | .87 | .91 | 1.00 | .95 | 1.02 |
| 15-in. " " 10 " 12 " " .. 1,260 " " | .80 | .96 | .90 | .96 | 1.00 | 1.35 | .93 | .97 | 1.10 | 1.15 | 1.10 | 1.19 |
| 15-in. " " 12 " 14 " " .. 1,370 " " | 1.00 | 1.05 | .96 | 1.06 | 1.17 | 1.50 | 1.22 | 1.15 | 1.31 | 1.34 | 1.25 | 1.48 |
| 15-in. " " 14 " 16 " " .. 1,700 " " | 1.00 | 1.11 | 1.06 | 1.24 | 1.27 | 1.55 | 1.37 | 1.47 | 1.56 | 1.60 | 1.50 | 1.69 |
| 15-in. " " 16 " 18 " " .. 900 " " | 1.30 | 1.34 | 1.30 | 1.67 | 1.62 | 1.80 | 1.47 | 2.67 | 1.86 | 2.00 | 2.00 | 1.90 |
| 15-in. " " 18 " 20 " " .. 250 " " | 1.50 | 1.50 | 1.80 | 1.92 | 2.65 | 2.00 | 1.93 | 3.47 | 2.20 | 2.45 | 2.50 | 2.55 |
| 18-in. " " 0 " 8 " " .. 200 " " | .90 | 1.00 | 1.20 | .96 | .96 | 1.90 | .87 | 1.05 | 1.18 | 1.20 | 1.05 | 1.03 |
| 18-in. " " 8 " 12 " " .. 300 " " | 1.00 | 1.15 | 1.25 | 1.22 | 1.25 | 2.00 | 1.60 | 1.50 | 1.48 | 1.50 | 1.25 | 1.59 |
| 18-in. " " 12 " 16 " " .. 700 " " | 1.60 | 1.45 | 1.30 | 1.54 | 1.50 | 2.19 | 1.53 | 2.75 | 1.98 | 2.00 | 2.00 | 2.15 |
| 4-in. house connections, under 8 ft. deep.. 1,000 " " | .30 | .25 | .20 | .27 | .36 | .24 | .30 | .29 | .35 | .30 | .38 | .97 |
| Manhales, 10 ft. deep and under..... 106 each... | 33.00 | 36.00 | 39.00 | 35.00 | 40.00 | 41.00 | 40.00 | 29.00 | 30.00 | 40.00 | 35.00 | 33.00 |
| Manholes, greater than 10 ft..... 100 " ... | 3.50 | 2.75 | 4.00 | 6.00 | 5.00 | 4.00 | 4.00 | 3.50 | 1.70 | 2.00 | 5.00 | 3.00 |
| Intersection manholes ..... 30 " ... | 37.00 | 40.00 | 65.00 | 51.00 | 43.00 | 45.00 | 50.00 | 40.00 | 37.50 | 52.00 | 45.00 | 44.00 |
| Drop manholes ..... 20 " ... | 2.00 | 2.00 | 6.00 | 7.00 | 2.00 | 4.00 | 5.00 | 4.50 | 1.00 | 2.00 | 5.00 | 4.00 |
| Underdrains ..... 1,000 lin. ft.. | .15 | .15 | .07 | .15 | .20 | .20 | .15 | .25 | .03 | .15 | .38 | .15 |
| Flushtanks ..... 30 each... | 44.00 | 45.00 | 40.00 | 47.00 | 50.00 | 60.00 | 50.00 | 35.00 | 40.00 | 87.00 | 85.00 | 44.00 |
| Total ..... | $32,985 | $34,308 | $36,799 | $36,918 | $38,658 | $40,034 | $40,274 | $41,479 | $42,142 | $46,365 | $45,635 | $50,270 |

FIREPROOFING.—Washington, D. C.—Lieut. John S. Sewell, U. S. Engr., Washington, received the following bids last week for fireproof construction at the new government printing office; (A) Roebling Construction Co., 121 Liberty St., New York; second bid conditional; (B) U. S. Clay Mfg. Co., Pittsburg, Pa.; (C) Fawcett Ventilated Fireproof Building Co., Ltd., Philadelphia:

| | A. | | B. | C. |
|---|---|---|---|---|
| 4-in. floor arches, with skewbks. | $0.28 | $0.22 | $0.31 | $0.21½ |
| Ceilings under main floors, ..... | .12 | .12 | .14 | .11½ |
| Roofing (main cornice), a sq.ft... | .22 | .19 | .24 | .20½ |
| Driveway, walks and court, sq.ft. | .26 | .20 | .25 | .23 |
| Stairways and halls..... | .37 | .37 | .35 | .50 |
| Coverings for girders: | | | | |
| With 33-in. web..... | 2.05 | 2.05 | 2.26 | 1.78 |
| " 30-in. " ..... | 1.98 | 1.98 | 2.15 | 1.69 |
| " 24-in. rolled girders... | 1.35 | 1.35 | 1.49 | 1.22 |
| " 20-in. " " ... | 1.25 | 1.25 | 1.40 | 1.08 |
| " 18-in. " " ... | 1.20 | 1.20 | 1.35 | 1.05 |
| " 15-in. " " ... | 1.15 | 1.15 | 1.30 | .95 |
| Coverings for channel columns: | | | | |
| 15-in., includ'g concrete filling | 1.92 | 1.92 | 2.65 | 1.65 |
| 12 and 8-in., finished, 26x26 ins. | 2.18 | 2.18 | 2.65 | 1.54 |
| same, where not finished.... | 1.48 | 1.48 | 1.73 | 1.26 |
| Extra for filling 15-in. channels* | .10 | .10 | .15 | .20 |
| Same for 12 and 18-in. chanls | .08 | .08 | .10 | .17 |

*With concrete where cover plates are not used.

The second column of figures of Roebling company bid is a conditional one and if common brick is used, $65 and $105 per M; the first bid in column 1 is price under 3 ft., if over 3 ft., 28 cts. The Brennan Construction Co., Washington, bid 9.5 cts. for ceilings under main floor, 13 cts. for roof, etc. 16 cts. for driveway, etc., and 18 cts. for stairways, etc.; and the Schillinger Bros. Co., 192 Morgan St., Chicago, bid as follows on the same items, respectively: 12½ cts., 14½ cts., 14¼ cts., and 15½ cts; the Washington Brick & Terra Cotta Co., Washington, bid 19.6 cts. on 4-in. segmental floor arches, etc.

GRADING.—Denver, Colo.—T. J. Tirsway, and Peter J. Olsen submitted the only bid July 3, 1900, for work in North Denver grading district No. 1 at 21 cts. a cu. yd. for both excavation, 135,000 yds., and embankments, 66,500 yds., and $26 per 1,000 ft. B.M. of lumber, 262,500 ft.

GAS LIGHTING.—Birmingham, Ala.—The light committee, it is stated, has reported in favor of awarding a contract for gas lighting to the Birmingham Gas Co., as follows: For the first 10 years, $1.40 per 1,000 ft., with 10% off, or $1.26; for the next 10 years, $1.30, with 10% off; for the next 5 years, $1.20, with 10% off; for the next 5 years, $1.10, with 10% off. The company to furnish 15 lights to the city free of charge.

BRICK SEWER.—Milwaukee, Wis.—The contract for section 7 of the 30th St. sewer, from North Ave. to Wright St., has been let to R. J. Hickey at $23.85 a ft. The sewer will be 1,367 ft. long and will cost about $300,000.

PIG IRON.—New York, N. Y.—The following bids were received by the general superintendent of the army transport service July 11, 1900, for furnishing 100 tons of pig iron ballast for the U. S. Army transport "Kilpatrick:" Pillings & Crane, Grand Trust Bldg., Philadelphia, $13 a ton; H. H. Adams & Co., 177 Broadway, New York, $15.60; J. J. Mohr, 133 S. 4th St., Philadelphia, $13.25; Thos. J. Pope's Sons, New York, $12.50; Pierson & Co., 29 Broadway, New York, $14.45; W. R. Thomas, 50 Wall St., New York, $12; G. W. Davis, New York, $12.15; Rogers, Brown & Co., 74 Broadway, New York, $11.15.

DRAINAGE DITCH.—Onawa, Ia.—The following bids were received by the county auditor July 5, 1900, for constructing the Wolf Creek drainage ditch: Canal Construction Co., 160 Washington St., Chicago, 7¼ cts. per cu yd. (accepted); A. V. Wells & Son, Illinois, 8½ cts.; C. H. Hillard, Calhoun, Ia., 18 cts.; V. Tamisca, Missouri Valley, 15 cts; A. H. Davenport, Missouri Valley, 14¾ cts; W. A. Smith, Cal. Junc., 19 cts.; Charles Kirk, Blair, Neb., 9.9 cts.; Owen Butler, Calhoun, Ia., 13 cts.; George Weatherly, 8.9 cts.; J. W. French, 12 cts.; E. A. Wicknam & Co., Council Bluffs, 10.9 cts.; John Dickenson, Cal. Junc., 15 cts.; George Sutherland, Blair, Neb., 10 cts.; R. Stack & Co., Omaha, 9 cts.; Interstate Drainage & Investment Co., Chicago, 8.4 cts.; Chas. Conner & Co., 9½ cts.; Thomas A. Dean, Rockport, Mo., 7.93 cts.; M. Vincent, 7.76 cts.

BRICK PAVING.—Champaign, Ill.—The board of local improvements received the following bids June 30, 1900, for brick paving in West Elm St.: J. W. Stipes, Champaign, Ill., excavating, per cu. yd., 22 cts.; pavement of Poston block brick, with crushed stone and concrete base, per sq. yd., $1.34; same with gravel and concrete base, $1.22 per sq. yd.; concrete curb and gutter, per lin. ft., 56 cts.; Andrew Barr, Urbana, Ill., excavating, 21 cts.; Poston block brick and crushed stone and cement base $1.36; same brick with gravel and concrete bed, $1.23; curb and gutter of concrete, 56 cts.

GAS LIGHTING.—St. Louis, Mo.—The following bids were received July 10, 1900, for furnishing 11,000 gas lights; the price being for 1,000 lamp hours, 60 c. p.; 4,106 lamp hours on one year, ten years: American Development Co., Chicago, $6.82 per 1,000 light hrs.; $28 per year; Welsbach Street Lighting Co. of America, U. G. I. Bldg., Philadelphia, $6.81, and $27.96 (awarded).

BRICK PAVING.—Augusta, Ga.—The following bids were received July 5, 1900, for about 1,200 sq. yds. of brick paving: Southern Paving & Construction Co., Chattanooga, Tenn., paving $2.75; stone abutments, per lin ft., $1; Coledale Brick Paving Co., Coledale, Ala., paving, $2.69; stone abutments, 75 cts. The bid were rejected as being too high. The city will purchase the brick and do the work itself. Nisbet Wingfield, Comr. Pub. Wks.

BRIDGE ABUTMENTS.—Batavia, O.—J. Y. Davis, New Richmond, O., has been awarded the contract at $1.24 a perch for abutments for a bridge over Big Indian Creek. Parvin & Montgar bid $1.54, and Wm. Farret, Owensville, O., bid $2.50. J. W. Davis, County Audr.

ASPHALT PAVING.—New York, N. Y.—Bids were received July 11, 1900, for repaving portions of 46 streets and avenues in Manhattan and the Bronx. The Atlantic Alcatraz Asphalt Co., 57 E. 59th St., New York, submitted the lowest bid for 13,675 yds. of repaving in 6th Ave., from 23d to 33d St., at $3.15 a yd.; for 13,775 yds. of old granite block relaid, 42 cts. a yd.; for 4,500 lin. ft. of new curbing, 85 cts. a lin. ft.; for 500 ft. of old curbing, 35 cts.; and for 12 new manholes, $21.50. The lowest bids for the other less important work were as follows: West 124th St., 4,235 yds., Barber Asphalt Paving Co., $2.44; granite blocks relaid, 4,300 yds., 42 cts., East 89th St., 6,635 yds., granite blocks relaid 6,685 yds., East 80th St., 5,885 yds., granite relaid 5,965 yds., W. 97th St., 5,525 yds., granite relaid 5,570 yds., Sicilian Asphalt Paving Co., paving $2.30, relaying 40 cts.; E. 147th St., 5,600 yds., Barber Asphalt Paving Co., $2.43; relaying 40 cts.; St. Ann's Ave., 8,200 yds., Asphalt Construction Co., $2.44; relaying, 32 cts.; 162d St., 6,000 yds., Barber company, $2.48; relaying, 5,000 yds., 43 cts.; 137th st., 5,000 yds., same; 165th St., Barber company, $2.50.

REMOVING LEDGES.—Boston Harbor, Mass.—Col. Chas. R. Suter, U. S. Engr., Boston, received the following bids July 16, 1900, for removing ledges from Boston Harbor: Dunbar & Sullivan, Rockland, Me., $13.99 a cu. yd.; Chas. W. Johnston, Lewes, Del., $15.80; Geo. A. Rogers, Plattsburg, N. Y., $16.99; Geo. W. Townsend and Hiram W. Phillips, Boston, $16.43; Robt. H. Rogers, Plattsburg, N.Y., $19.87; B. W. Mitchell, New York, N.Y., $16.75; Gilbert H. Harries and John H. Letteney, Boston, $22.10.

## INDUSTRIAL NOTES.

THE WABASH BRIDGE CO., Wabash, Ind., has been awarded the contract to build the five steel buildings and the steel coal office of the new plant of the Newaygo Portland Cement Co., Newaygo, Mich.

THE NEW CASTLE BRIDGE CO., New Castle, Ind., is building five bridges for the city of Sault Ste. Marie, Mich. We are informed that the press reports claiming that these contracts are to be cancelled are incorrect and that each of the five bridges will be completed by the New Castle Bridge Co., the first two being completed by Oct. 15, 1900.

THE MACOMBER & WHYTE ROPE CO., 21 South Canal St., Chicago, has succeeded the Leschen-Macomber-Whyte Co. at same address, Mr. Leschen having sold his interest to the remaining members of the company. The company claims to carry the largest stock of wire rope in Chicago, and makes a specialty of quarry, mine and contractors' supplies.

THE CARLIN LOCOMOTIVE WORKS, 610 Lewis Bldg., Pittsburg, has been organized with a capital stock of $150,000, and has a main building 75 x 200 ft. nearly completed. It will also have a smith and hammer shop, boiler and engine house. The company will build light locomotives for contractors, etc., and expects to have its plant in operation with a capacity of two locomotives a week in about two months. Pres., W. J. Carlin; Supt., A. A. Breneen, formerly of the Lake Shore R. R. shops at Cleveland; L. H. Turner, Supt. Motor Power and Equipments, Pittsburg & Lake Erie R. R., is one of the incorporators.

NEW COMPANIES.—E. B. M'Near Brick Co., San Rafael, Cal.; $100,000; J. A. McNear, Pelatuma; J. W. Cochrane.

American Bell Trap Co., Albany, N. Y.; $100,000; manufacture traps for sinks, etc.; C. H. Armatage, J. H. Manning.

Rhode Island Supply & Engineering Co., Providence, R. I.; dealing in articles of iron, steel, etc.; $50,000; J. W. Mills, J. W. Horton, Providence.

Western Railway Equipment Co., St. Louis, Mo.; $20,000; B. S. Marshall, W. J. Orthwein, F. E. Nulsen, C. A. Thompson.

Meyers Brake Fender Co., Syracuse, N. Y.; $100,000; manufacture electrical appliances; M. J. Meyers, A. C. Stevens, F. Myers.

American Nickel Steel Co., Wilmington, Del.; manufacture steel, etc.; $1,500,000; J. Marvel, W. M. Lupton, R. C. Lupton.

The Waynesburg Forge, Sheet & Tin Mills, Waynesburg, Pa.; manufacturing iron and steel; $200,000; N. R. Baker, N. B. Duncan, Washington; T. Ross, I. G. Hoge.

Pittsburg, Steel Construction Co., Pittsburg, Pa.; manufacture and construction of bridges; $25,000; H. M. Hooker, T. A. Wilson, J. C. Wolfran, W. L. Berger.

American Car Ventilator Co., Camden, N. J.; $250,000; G. Rice, L. S. Bader, M. J. Begley, Philadelphia; F. B. Mogridge.

Virginia Conduit Railway Co., Richmond, Va.; manufacture machinery for conduit and underground trolleys; $1,000,000; A. Pizzini, Jr., W. S. Forbes, W. B. Davis, W. R. Johnston.

Pneumatic Tool Improvement Co., Camden, N. J.; manufacture pneumatic machines, etc.; $150,000; J. W. Duntley, W. C. Strowbridge, T. Alderman.

## Mail Delivery Notice.

**Complaints are frequently sent to us because subscribers do not receive their papers on time. The first pages of Engineering News go to press on Monday each week, the next 32 pages on Tuesday, and the remaining pages, including "Wants," "Proposals" and "For Sale" cards, early on Wednesday. All papers for Boston, Philadelphia, Washington and Greater New York should be received upon the first delivery Thursday. The last of the entire edition is in the New York post-office soon after 6 o'clock Thursday morning. If your paper is not received promptly we suggest that you make a complaint in writing to your local post-office officials. This will be investigated and the letter forwarded to the office where the delay occurs.**

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